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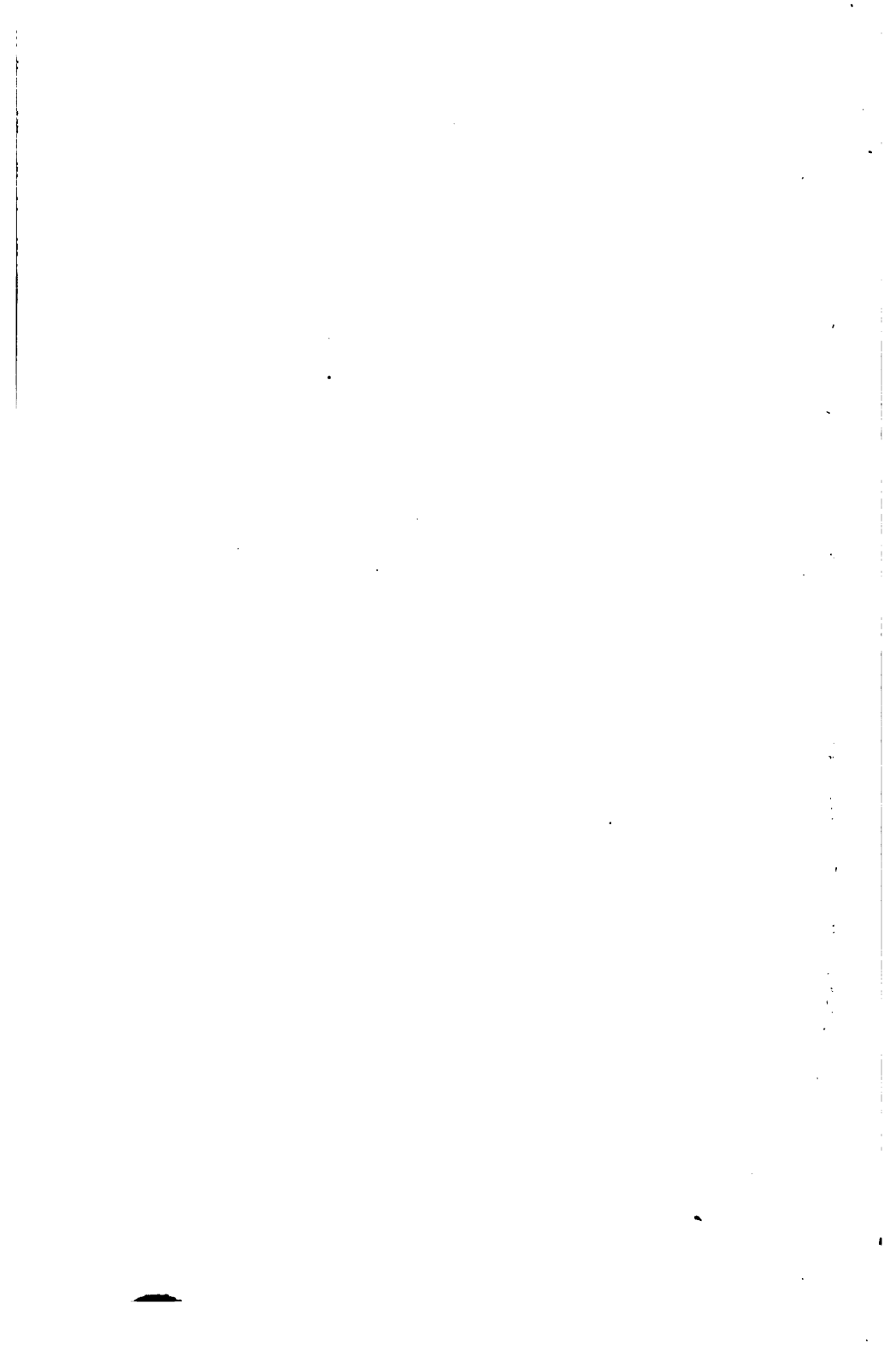
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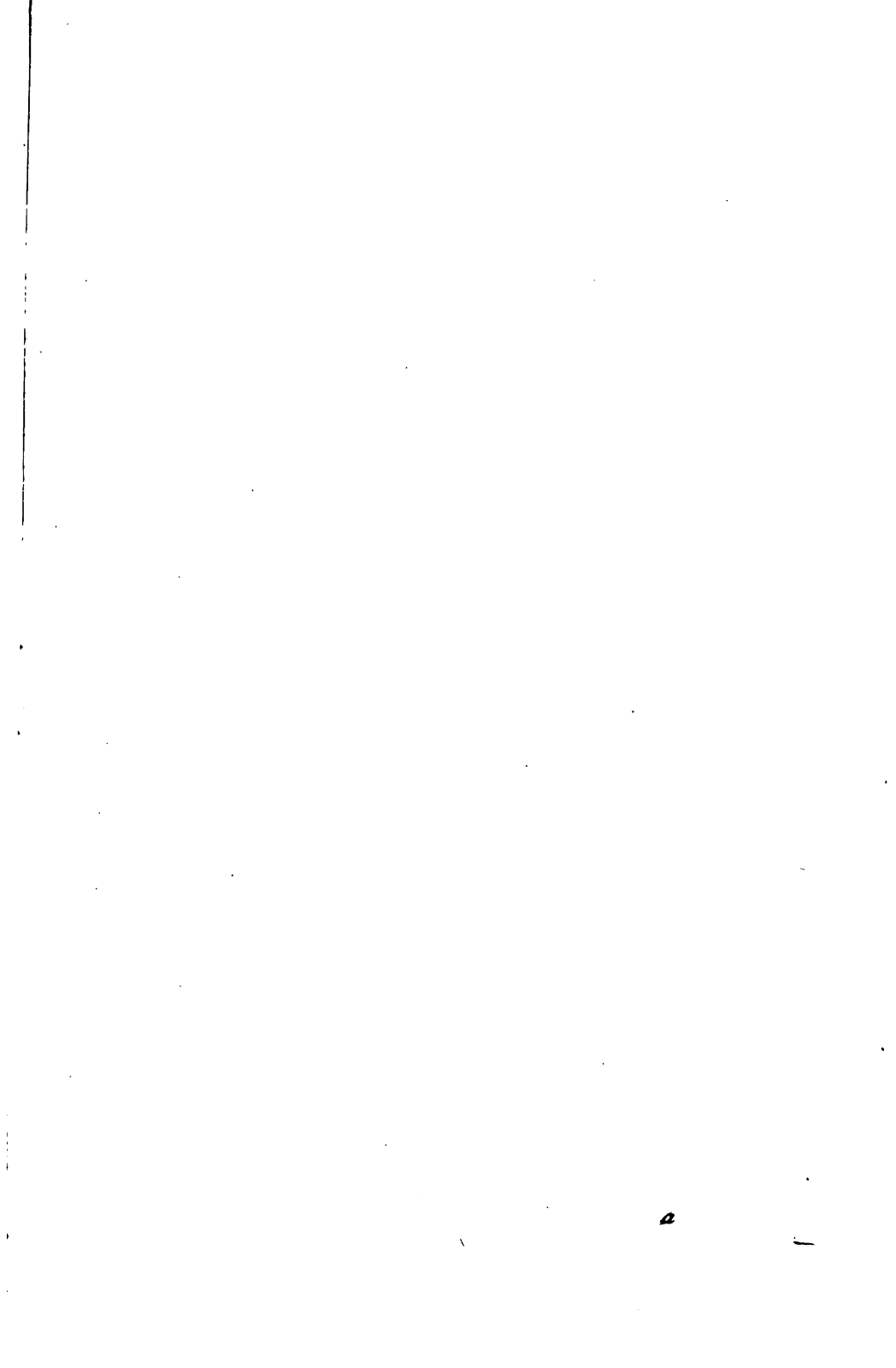
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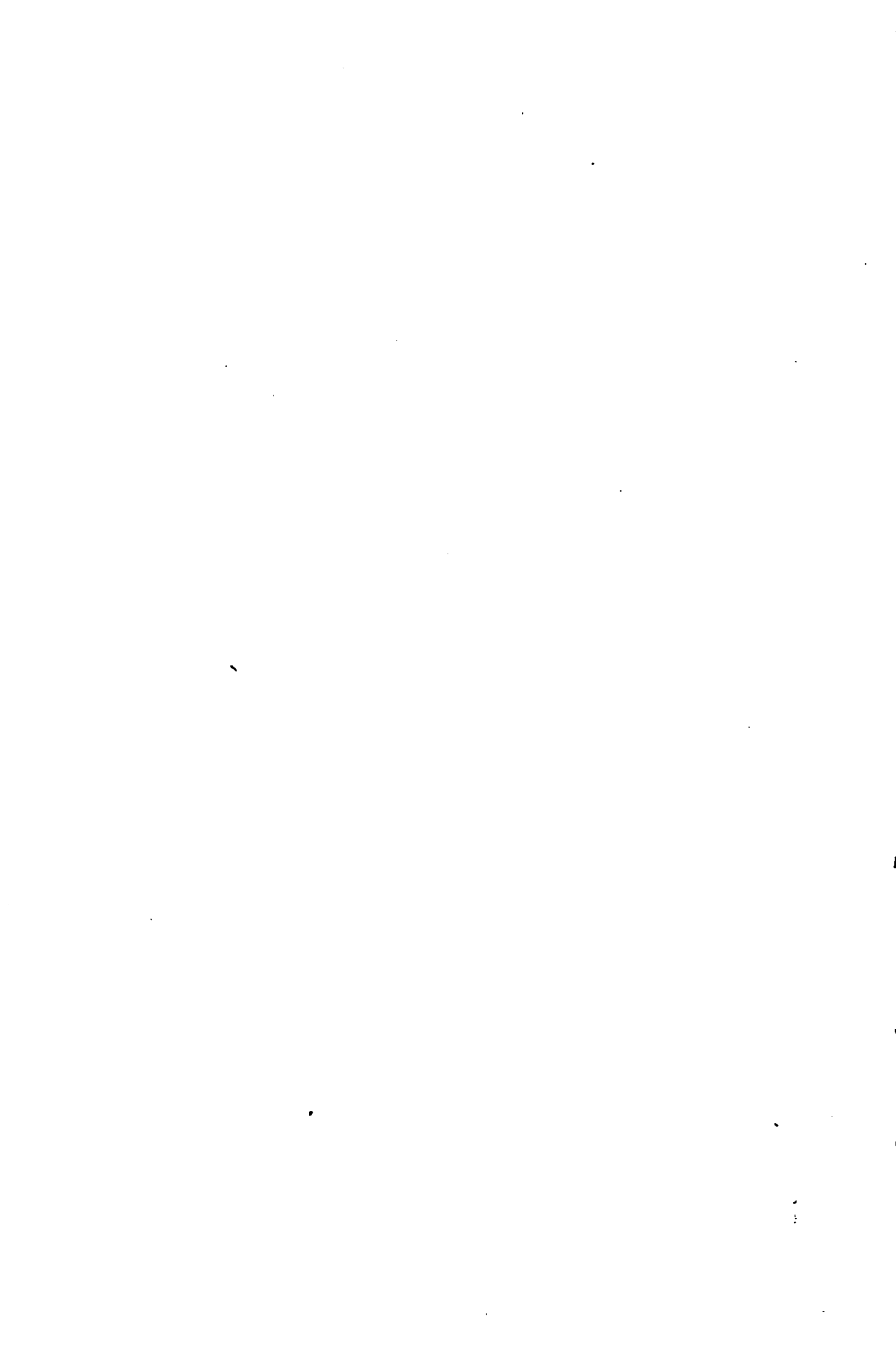
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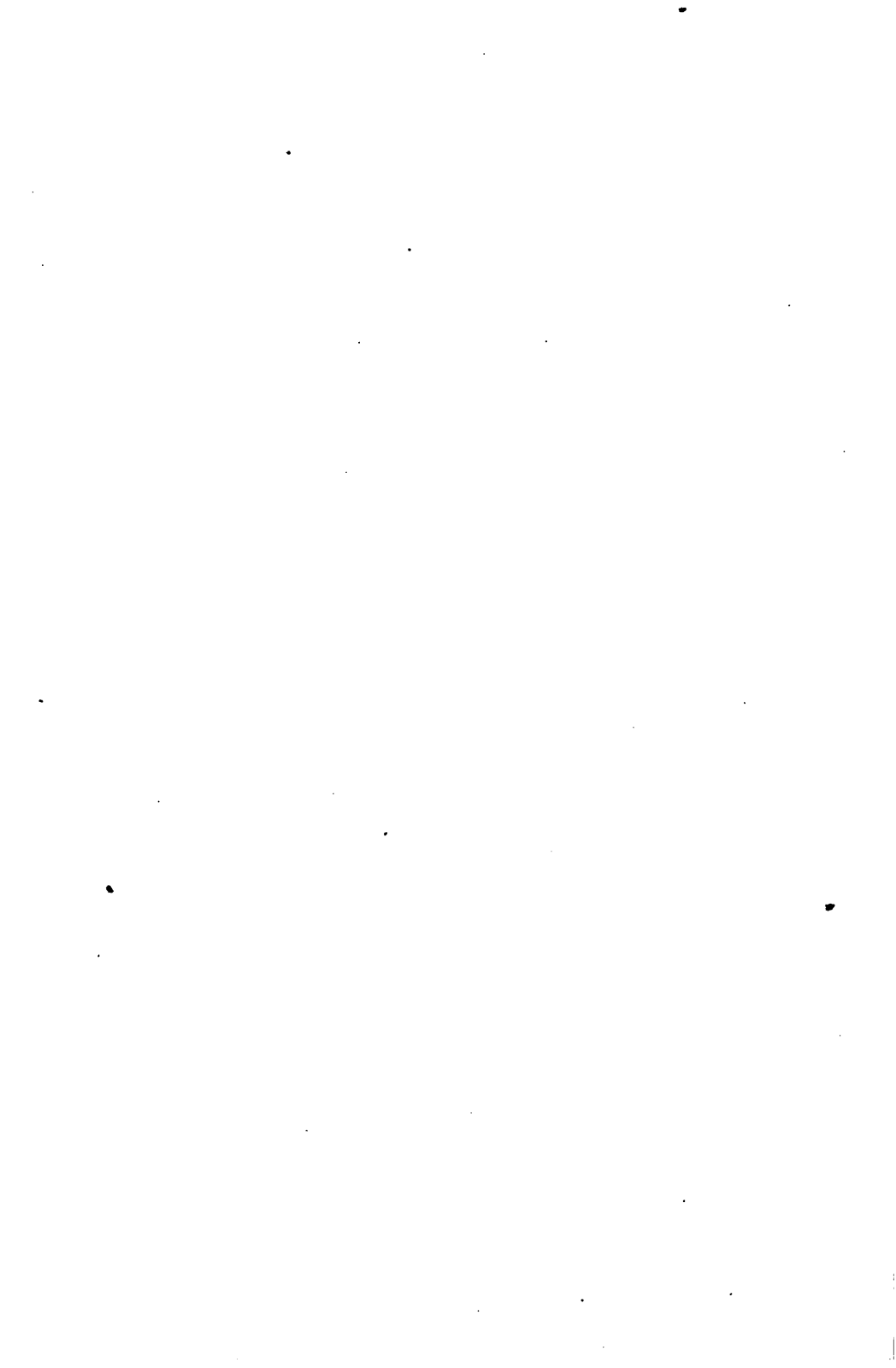








ORGANISED PRODUCE MARKETS



ORGANISED PRODUCE MARKETS

BY

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PREFACE

THIS volume, based on lectures delivered in the Faculty of Commerce of the University of Birmingham, is intended primarily for the use of students. The interest, however, of its subject matter to business men and others, and the lack of a recent work for English readers on the aspects of marketing herein treated, suggest that it is likely to appeal to a wider audience than that of the University classroom. Therefore, references to conceptions likely to be familiar only to students of economic theory have been omitted as far as possible; but it is not to be inferred from this that the book is entirely descriptive. Discussion has not been avoided when it seemed likely to lead to useful generalisations or suggestive conclusions.

It does not come within the scope of the book to treat of wholesale markets generally in England. Much information has been collected recently both by the Departmental Committee, set up in 1919 by the Food Controller to report on the existing wholesale markets for perishable food in London, and by the Public Control Committee of the London County Council; but further inquiry and research are necessary before this branch of marketing can be advantageously summarised.

Naturally, in a work of this kind, the writer is largely indebted to others for information concerning the market organisations described. Secretaries of trade associations and exchanges have, in the majority of cases, courteously supplied all the information requested. One important English exchange authority, for reasons not readily apparent, declines to permit non-members to examine its clearing-house forms, even when unused. This, however, has proved to be less serious an obstacle than at one time appeared probable.

It is believed that the facts and figures given concerning the several exchanges described are correct up to the close of 1921, and that no recent innovations of importance have been overlooked. The establishment, however, in January, 1922, of a new cotton exchange in Rotterdam, and the purchase, for forward delivery, of the whole of the 1922 output of nineteen large tea estates in Ceylon, by the London market, on behalf of blending houses in this country, point to the continuance of fairly rapid

changes in marketing routine in Europe; and the passing of the Future Trading Act indicates the existence of a reforming spirit also in the United States. As it is not easy for one who has no direct contact with American conditions to forecast the effects of this Act, it has been thought desirable to give it *in extenso* in an appendix and leave the reader to form his own judgment upon the provisions it embodies.

Among the published works on marketing found especially useful have been Emery, *Speculation on the Stock and Produce Exchanges of the United States*; *Annals of the American Academy of Political and Social Science*, vol. xxxviii.; Sonndorfer, *Die Technik des Welthandels*.

Sir William Ashley, Dean of the Faculty, has been good enough to offer certain suggestions, most of which have gratefully been adopted, but the author alone is to be held responsible for all imperfections and omissions.

J. G. SMITH.

UNIVERSITY OF BIRMINGHAM,
February, 1922.

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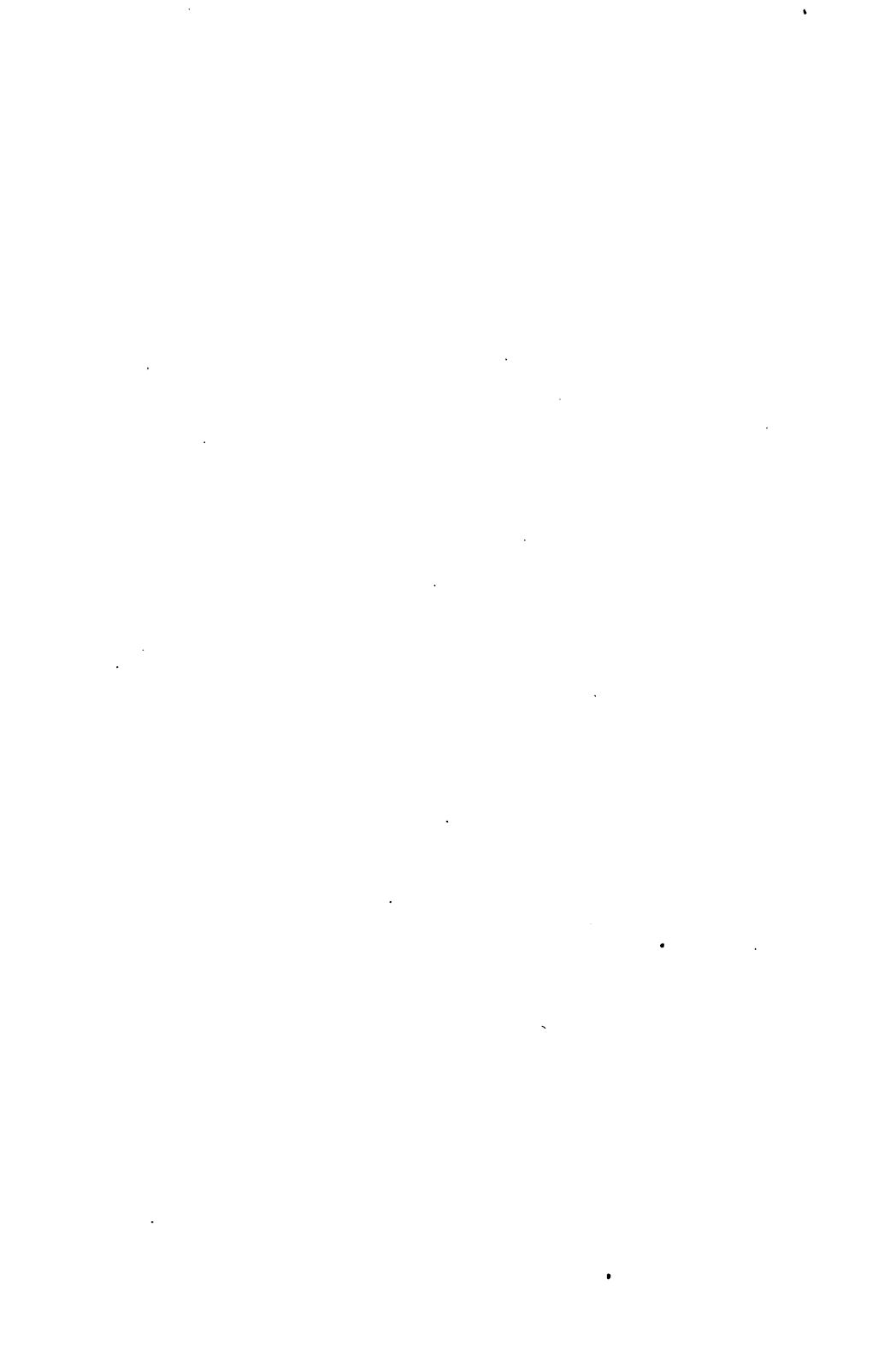
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ORGANISED PRODUCE MARKETS

CHAPTER I

ORGANISED PRODUCE MARKETS

AT a time when communities were self-sufficing the problem of the transfer of commodities from the producer to the consumer was a simple one. As society developed and industry became specialised the problem grew in complexity, until eventually the necessary services came to be performed by middlemen, who are remunerated partly by the producer and partly by the consumer.

Investigation into the nature of the services rendered by the middleman shows that they may be classified under one or more of several heads: ¹

(1) The seeking out of commodities and buying them from producers in all parts of the world.

(2) The holding of stocks of goods at convenient points, warehousing, and storing.

(3) The assumption of risks due mainly to price fluctuations, changes in quality, and possible loss by fire or accident.

(4) Financing (*i.e.* the providing of credit when and as required).

(5) Selling, including preparation therefor.

(6) Transport each time the commodity changes hands.

The more difficult these functions are to perform in any given case the greater the need of specialisation and the greater the variety of middlemen required for their fulfilment. In all highly organised modern commercial communities the degree of specialisation is great, and constantly increasing. Warehousing and storing, for example, are becoming more and more the work of special firms and special joint stock companies. The work of

¹ See Shaw, "Some Problems in Market Distribution," *Quarterly Journal of Economics*, vol. xxvi. pp. 703-65; and Weld, "Marketing Functions and Mercantile Organisation," *American Economic Review*, Fourth Series, vol. vii. pp. 306-18.

finance has, for some time, been entrusted to banks. Risk, due to loss by fire or accident, is borne by insurance companies. Transport, in its various forms, has long ago ceased to be wholly provided by buyer or seller. Factors or agents specialise in seeking out the producer ; and the professional " grader " is now an established institution in the case of wheat, cotton, and those other agricultural products for which the demand is wide-spread and the sources of supply more or less localised.

The last, but by no means the least important, of the functions of the middleman to become the work of specialists is the assumption of risk due to price fluctuations.

Progress in this direction has hitherto been slow and difficult ; and it is only in the case of comparatively few commodities that success has been attained. This has been rendered possible by the development of a very high degree of organisation. It is, therefore, in the most highly organised markets alone that this class of expert risk-taker is to be found ; and it is only in comparatively few even of these that it does not add other functions to that one to which it primarily owes its existence.

The term " market " has more than one meaning, and is used with several connotations ; but in every case there is implied the existence of one group or several groups of people, some of whom desire to obtain certain things, and some of whom are in a position to satisfy that desire. It is also implied that the former are in possession or can obtain control of sufficient purchasing power to enable them to fulfil their desires—*i.e.* that the demand is effective,—while the latter, at least in the larger produce markets, are able within certain limits to withhold or increase supply to an extent great enough to withstand unforeseen pressure from the demand side.

Again, the word may be used to designate the collective feeling of the group or groups as to prices ; and this collective feeling may be personified, thus justifying the use of such adjectives as " strong " and " weak," and the attribution also of practically every emotion ordinarily ascribable to a human being.

A market may consist of all the inhabitants of a village, town, or district ; or it may be confined to those who are interested in one commodity only, *e.g.* raw cotton or copper. In some cases dealings in a particular product may be worked out in such constant intercommunication over the whole globe as to justify the use of the phrase " world market." The development of cheap and rapid transport, and the invention of the telegraph and telephone in the latter half of the nineteenth century have resulted in a continuous if slow, increase in the number of commodities whose market is thus world-wide. Moreover, these same developments and inventions have had the effect also of so distributing demand and supply in the modern market

that these latter are no longer transitory phenomena, definite only at a particular moment in a particular place, but are streams flowing at various rates during an appropriately selected period of time. Supply as a rule is the more sluggish stream influenced at every stage by constantly altering facilities for production, and by optimistic or pessimistic anticipations concerning the nature of the demand expected.

The proceedings of an organised market are governed by rules, some of which are, in all cases, written or printed, and some of which are, in the nature of conventions, unwritten, but none the less binding on that account. These organised markets or exchanges may be private voluntary associations of dealers in one or more commodities. Such is the case in the United Kingdom. They are of two kinds—one dealing in Government and industrial securities, in stocks, shares, and bonds (stock exchanges); the other dealing in commodities (produce exchanges). Their members may be professional traders who buy and sell on their own account, as well as dealers who buy and sell for others. In this country exchanges had their origin, just like associations for many other purposes, in informal, succeeded by more formal, meetings of several persons to discuss mutual interests and to advance their business. The desire to maintain uniformity in the rates charged for services as agents for the general public was a powerful impetus to the continuance of these meetings; but the growth of large-scale production causing, in industrial areas, a concentration of population requiring a supply both of food and of the raw materials of industry, which could be easily adjusted to a demand fluctuating within a narrow range of variation, rendered organised markets a necessity if society was to run smoothly along the lines upon which it had entered.

In the United States of America stock exchanges are private organisations, as in the United Kingdom. This is true also of the American produce exchanges, with the qualification that these, in most cases, exist under corporate charters obtained from the States in whose territories they are situated. Many of these are associations, organised originally for more general purposes, which by accident or design have become the most important markets in some one or more commodities, though they include large numbers of merchants who never deal in these leading commodities.

Very different is the position of the exchanges or bourses on the Continent. In France the Paris Bourse (Stock Exchange) is a private monopoly under strict Government control, with features peculiar to itself which need not detain us here; while the produce exchanges (*bourses de commerce*) with their members (*tourtiers on marchandises*) have their organisation prescribed for them by the *Code de Commerce*. Their general supervision is entrusted to the

local *chambres de commerce*, and as these are practically official bodies with small powers of initiative, carrying out their duties under the direction of the *Ministre de Commerce*, Government control of markets (in France) is effectively complete.

In Germany there is no uniformity in the legal status of the exchanges (*Börsen*¹), but with the exception of a small stock exchange in Dresden, which is a private body, there is external control in every case. There may be somewhat strict Governmental supervision, as in Prussia, or control by a semi-public *Handelskammer*, as in Frankfort and in Leipzig.

In Holland the supervision of exchanges is entrusted to the municipalities in whose areas they are situated. Actually, however, these powers of control are rarely exercised.

While it is true that organised markets are needed only when people cease to be, or can no longer be, satisfied with the few products produced mainly by themselves and their immediate neighbours, or when they produce surplus stock exceeding local demand, it is but a small number of commodities which can with advantage be made the subject of dealings in such markets, and a still smaller number which satisfy conditions requisite for being dealt in at a number of such markets simultaneously. At least five conditions must be fulfilled by any product before it can be the subject of dealings in an organised market.

Firstly, it must be sufficiently durable to enable stocks to be what is termed "carried" for a reasonable length of time when the market is unduly depressed. This rules out all quickly perishable commodities such as meat, fruit, and fish; but the increased provision of cold storage facilities is making this requirement capable of more ready fulfilment, and the markets for foreign meat and fruit show a growing tendency towards specialisation and organisation similar to that of the corn markets.

Secondly, the product must be one that can be numbered, weighed, or measured with accuracy obvious to all. The greater the ease with which this can be done in the case of a given commodity the greater the probability of organised dealings taking place in that commodity.

Thirdly, its quality or grade should be capable of a ready test yielding the same results when applied by trustworthy officials at different times and in different places. Otherwise expressed, these second and third conditions amount to the requirement that the commodity must be fungible, *i.e.* of such a kind that one part or piece is as good as another, or at any rate that all parts or pieces will serve the purpose of the purchaser for use equally well. It is only in such cases that dealing by sample or

¹ *Effectenbörsen*, *Fondsbörsen*, *Geldbörsen* (stock exchanges); and *Warenbörsen*, *Producentenbörsen* (commodity and produce exchanges).

by reference to conventional representative qualities can occur. This condition is perhaps the most essential of all.

Fourthly, the dealings in the commodity must be sufficiently frequent to occupy large bodies of buyers and sellers.

Fifthly, there must be fluctuations in price, that is, the commodity must be one whose supply cannot be varied quickly by rapid changes in the rate of production ; for otherwise there would be no opportunity for professional dealers to make a living, and all transactions would take place between producers, merchants, and consumers, owing to the ease with which the supply could be adapted to the demand.

Apart from securities, of the comparatively few material things which satisfy all these conditions to the extent required for large-scale organised dealing, a certain number of agricultural products and, to a less degree, the metals complete the list, at the head of which may be placed raw cotton and wheat, closely followed by the other cereals and coffee. These products are shipped from one country to another in very large quantities. Exporters and importers would find it impossible to collect readily from the scattered wheat and cotton growing areas sufficient quantities to fulfil isolated orders for specific grades as received. Moreover, cotton and wheat can be handled most economically when in bulk and can be stored cheaply without risk of deterioration for lengthy periods of time. Again, they can be graded into standard qualities, and are collected from many scattered sources and producers whose individual contributions are small in comparison with the total output dealt with by the market. Wool, at first sight, might appear adapted equally with, if not better than, cotton for organised dealings ; but difficulties in grading have hitherto prevented the growth of a market in wool comparable in organisation to that in cotton.¹ Each fleece contains portions possessing widely different qualities, which must be separated off before use. Moreover, each district has its own special breed of sheep, while climate and soil differentiate the product from place to place, even when the breeds are the same. Some approach to uniformity is possible in the case of wool from new countries like New Zealand, where breed, climate, and soil are the same over very large areas ; but even this help to the grader is counterbalanced by the rapid changes in fashion which constantly alter the relative values of the different fibres, in consequence of the alterations in texture imposed upon the weaver to meet the constant new market demand. In the cotton market the relative values of different staples are much more permanent and the same trouble is not met with. Yet,

¹ See Cherington, "Some Aspects of the Wool Trade of the United States," *Quarterly Journal of Economics*, vol. xxv. pp. 337-56, for account of an attempt to found a Wool Exchange in New York.

notwithstanding these difficulties, the wool market possesses a considerable degree of organisation, and grading is performed by the Bradford Conditioning House with extreme precision. Moreover, there are traces of speculative dealings in some Continental centres of the trade, in Havre, for example, in raw wool, and in Antwerp and Roubaix-Tourcoing in "tops."¹

Somewhat similar difficulties of grading exist in the case also of coal. This commodity is exceedingly varied in character over the same coal field, and even when actually cut from adjacent portions of the same seam. Again, although the actual determination of calorific value, which might serve as the basis of grading, is not difficult, the question of size—whether "large" or "small" or "fine"—is one equally important to consumers. The reduction of even a small range of calorific values in combination with size to their equivalents in a few standard sorts is a task of great difficulty and has as yet been scarcely attempted; but the London Coal Exchange, which deals in almost every variety, has had some success in introducing uniformity into the movements of prices of different kinds. The local markets, however, throughout the world, each with its own business terms and customs, still dominate the coal trade. There is no trace of the growth of anything approaching an organised world market in this mineral.

The markets for certain of the metals are highly organised, though for different reasons in the several cases. The circumstances attending the production and marketing of wheat, cotton, coffee, and agricultural produce generally differ so markedly from those in the case of the metals that the problems of dealers in the two groups are extremely divergent. In the one case the supply is not produced continuously, but depends each year upon the results of harvests falling within assigned parts of the year, while the demand by consumers is continuous and practically uniform throughout the year. Dealers in these commodities, therefore, have to adjust a seasonal supply to a continuous demand. With metals supply does not depend, except to a negligible degree, on seasonal variation during the year; whereas demand is fluctuating and uncertain. In this case supply can be organised so as to meet demand and can most easily adjust itself when the latter is steady, whether it be of large or of small dimensions. In the agricultural group, therefore, conditions on the demand side tend to be the steadier and to be more easy of forecast and the conditions of supply more uncertain; but in the metal group the reverse is true.

As regards iron and steel, it is only in certain exceptional cases,

¹ "Tops" are the coiled flat-ended balls of equal weight into which wool is built up in the combing process. See Olapham, *The Woollen and Worsted Industries*, pp. 40 and 46.

of great interest but of comparatively small importance in the trade as a whole, that dealings comparable to those in an organised market have sprung up. The tendency to further development in this direction has been checked by the growth of "vertical combination" in the iron and steel industries, which enables the larger manufacturers to satisfy their requirements in the way of raw material without recourse to markets. Copper and tin afford greater scope for the development of organised markets. This is mainly due to the great fluctuations that take place in their prices, which offer to specialised dealers the opportunities for profit that must exist to call such operators into being. These fluctuations are due to the growing need of these metals in the developments that are taking place in certain large industries. For example, electrical engineering is making a continually increasing demand for copper, a scarcity of which would considerably hinder progress in that industry, and thus react in turn on many other allied industries. Again, the present sources of supply of these metals are in places remote from the chief industries and are liable to interruption from causes, both physical and political, over which dealers have no control. In this respect these two metals resemble to some extent the agricultural products.

Other commodities may, on occasion, admit of being handled in the organised produce exchanges and may be even, for a time, the subject of a very great number of transactions. This is often a consequence of fluctuations in an otherwise regular supply—fluctuations temporary but sufficiently long sustained to offer an opportunity of profit to expert dealers. Occasionally the transitory importance of the commodity is due to sudden changes in demand which were not foreseen by suppliers; but in each case the cessation of the disturbing cause results in the commodity disappearing again from the list of those in which alone speculation affords a fair prospect of profit.

It is obvious that wholly or partly manufactured articles do not even in a remote degree come within the category of commodities which can be handled in an organised market.¹ Apart from the ease and speed with which demand and supply are ordinarily adjusted in this case, the fact that no one purchaser wants many articles, and buys only after personal inspection, makes it more economical to transact business at a large number of small distributing points than to attempt large-scale dealings in an exchange.

About 1886 an attempt was made to develop a branch of the Berlin Bourse for dealings in this class of goods. The venture met with little success, and was abandoned in 1888. No attempt has since been made on any other exchange to extend its operations in this direction.

¹ In this connection, see pp. 153 and 172 *sq.*

It is in the organised markets or exchanges that the middleman performs those two functions which producers and consumers are very willing to depute to him, viz. the holding of stocks of goods at convenient points and the assumption of risks due to price fluctuations. For the efficient performance of these duties convenience and promptness in buying and selling are essential. Uniformity of usage, and strict adherence to conventional standards of conduct in business are scarcely less desirable; and the rules of all bourses, exchanges, boards of trade, or chambers of commerce, as these markets are variously termed, endeavour to make full provision in this respect.

In recent years further steps have been taken in the standardisation of trade customs, and in the still greater simplification of the conditions under which produce is exchanged, by the formation in each country of associations embracing all the exchanges dealing in the chief commodities. For example, in 1909 the Council of the North American Grain Exchanges was formed to consist of delegates representing the organised grain centres (at least thirteen in number) of the United States. The object of this body is:

“To increase the efficiency and extent of the usefulness of exchanges trading in agricultural products; to promote uniformity in customs and usages; to facilitate the adjustment of business controversies and differences that might arise between members of the various exchanges; to render enforceable the principles of justice and equity; to encourage the enactment of wise and helpful legislation; to enlighten the general public as to the important service rendered by exchanges in handling agricultural products; to cultivate reciprocal relations between the trade of North America and that of other countries; to obtain by affiliation those greater legitimate conditions unattainable by separate and local effort; and, generally, to advance the welfare of the grain trade, its allied interests, and the interests of all those engaged in the production, handling, marketing, and consumption of agricultural products.”

For facilitating export business in the same way, there is the North American Export Grain Association, which works in co-operation with the Liverpool Corn Trade Association, Ltd., and other bodies in the importing countries; and the National Federation of Corn Trade Associations in the United Kingdom is another organisation representative of market authorities which acts in the name of the whole of the corn trade associations of Great Britain and Ireland.

By no means the least important of the objects of the organised markets is the dissemination of information of every kind bearing on the supply or demand of the commodity dealt in. The importance of correct and trustworthy news of the conditions of growing crops and of reliable estimates of their probable yields has become so great, not only for dealers but for consumers

as well, that Governments have taken it upon themselves to help the markets in this respect and have, in most of the large agricultural countries, set up elaborate machinery for reporting crop conditions at every stage of growth. In some countries like Canada and the United States private agencies supplement the official reports concerning crop conditions; but every exchange provides its own arrangements for the collection of less striking, but equally important, items of news bearing on weather conditions, movements in other markets, price quotations, rumours of political change—in fact, anything that may, even remotely, influence demand and supply in any part of the world.

An exchange is not an organisation for the making of money, but it may collect from members and others who make use of the facilities it provides fees and dues with which to pay necessary expenses. It does not fix prices or make transactions in ordinary business as an organised body, although it may sometimes accept full legal responsibility on behalf of each party to any contract made under its rules, notwithstanding the fact that as an institution it never initiates business itself. It is primarily instrumental in affording a convenient market place, in regulating trade, and in controlling the conduct of business of its members; but the latter act upon their own responsibility, and may trade as much or as little as they please, provided they conform to the standards which the rules of the exchange prescribe for the regulation of business.¹

¹ See *Report on the Winnipeg Grain Exchange*, September 10, 1921 (being a statement submitted to the Royal Grain Inquiry Commission by the secretary in response to a questionnaire received from the Commission, May 16, 1921), pp. 16-18 inclusive.

CHAPTER II

WARRANTS AND GRADING

BEFORE speculative dealings in organised markets could attain their present degree of development, systems had to be devised whereby commodities could be classified in grades and certified as in accordance with sample or standard generally recognised by dealers. The adoption of grades or of classification by qualities did not take place immediately the need was felt. Yet a space of little more than a quarter of a century was sufficient to perfect the very efficient methods now in use in the case of the main staple commodities of international trade. The desire of a merchant to take advantage of a favourable price before his goods were ready caused him often to make offers of "forward delivery" of particular lots on the basis of samples supplied, and then later on the basis of a fairly generally recognised standard. Gradually the custom sprang up of the buyer accepting goods purchased on the latter basis which were not of the specified standard, provided allowances were made in payment for any variations in quality. This was the case particularly in the cotton trade. English importers began selling cotton to the spinners before their cargoes arrived—selling it "to arrive" or "in transit." The next step was to sell even before it left the American ports, in which case it was said to be sold "for shipment." In the grain trade the development at first was different, owing to the much wider area over which that commodity had to be distributed. Here the cargo was shipped to a port of call "for orders," and before the arrival of the vessel the importer sold for delivery in the market best at the moment. On arrival of the ship at the port of call it was then directed to proceed to the place where the cargo had been sold. In this way ports like Queenstown, Falmouth, Gibraltar, and Aden became important; but with the growing use of wireless telegraphy by merchant vessels ports of call become less essential and ships' charter parties are being altered accordingly. All these methods of trading are still regular and in common use.

Further development took place when the warrant system and official grading came into general use. Warrants are not of recent introduction; they date back to 1733, in connection with

the business of the East India Company. Their function is to transfer ownership without actual transfer of goods. They also serve as security, by means of which advances from bankers can be obtained. By endorsement they pass from hand to hand, and can at any time be presented for the goods they represent. Such warrants, representing specific lots of goods, are merely special receipts; and transactions in them are precisely the same as dealings in the goods themselves. In the case of iron, there sprang up about the middle of the nineteenth century a system of general warrants, united with carefully conducted grading, which helped markedly in the organisation of the Glasgow and Middlesbrough iron markets. A general warrant is a receipt for no particular lot, but merely a transferable order for an equal amount of the given commodity of the same grade. The English law courts always upheld the special characteristics of these warrants in case of dispute, and in this connection the dicta of the Master of the Rolls (Jessel), in delivering judgment in 1877 in the case *Merchant Banking Co. v. Phoenix Bessemer Steel Co.*, are of importance :

“The form (of iron warrant) was invented about 1846 and the practice grew general about 1866, and, I think, from that time till now we must consider it, on the evidence, as an established custom, that any man who gives this warrant understands that it shall pass from hand to hand for value by indorsement, and that the indorsee is to have the goods free from any vendor's claim for purchase money. He is not to be asked whether he has a claim or not; if he chooses to issue it in this shape, he tells all the trade that they may safely deal on the faith of that warrant, and whether or not it becomes a negotiable instrument at common law as distinct from equity is, to my mind, utterly immaterial. That is the custom; and as the man who issues such a warrant knows that custom, it appears to me that the Phoenix Bessemer Co. have issued those exactly as if they had said they were to be deliverable according to the custom of the iron trade, that is, to be deliverable ‘free from any vendor's lien’ to Messrs. Smith & Co. or their assigns by indorsement. If these words had been inserted, as I think it will be desirable in future they should be inserted, can anybody doubt that the company, by issuing the warrant in that form, would be precluded in equity from afterwards alleging that they were unpaid vendors?”

But apart from the fact that the Courts uphold reasonable trade customs when satisfactory proof of their existence is supplied, Section 25 of the Sale of Goods Act, 1893, places the question of transferability of warrants beyond all doubt :

(1) “Where a person having sold goods continues or is in possession of the goods, or of the documents of title to the goods, the delivery or transfer by that person, or by a mercantile agent acting for him, of the goods or documents of title, under any sale, pledge,

or other disposition thereof, to any person receiving the same in good faith and without notice of the previous sale, shall have the same effect as if the person making the delivery or transfer were expressly authorised by the owner of the goods to make the same.

(2) "Where a person having bought or agreed to buy goods obtains, with the consent of the seller, possession of the goods or the documents of title to the goods, the delivery or transfer by that person, or by a mercantile agent acting for him, of the goods or documents of title, under any sale, pledge, or other disposition thereof to any person receiving the same in good faith and without notice of any lien or other right of the original seller in respect of the goods, shall have the same effect as if the person making the delivery or transfer were a mercantile agent in possession of the goods or documents of title with the consent of the owner."¹

About the same time general warrants and grading developed independently in the United States for wheat and other grains. The collection at export centres of these commodities from a large number of small producers and the mixing of all the contributors' shares in one consignment made it impossible to give receipts for specific lots. Moreover, it became increasingly difficult to sell by sample under these circumstances, and so during the 'fifties of last century the system of grading was fully adopted. Large warehouses and grain elevators sprang up at export points, and the railways as they extended west set up similar stores there. As wheat was presented for storage it was inspected and classified in established grades. The receipts issued by the warehouse or elevator became the equivalent, for market purposes, of the given amount of a specified grade, and were thus warrants entitling the holder to possession on presentation. At first they were specific orders for actual lots deposited, notwithstanding the fixed grades, but they became general receipts (general warrants) when the growth of the amount of wheat stored in bulk rendered it difficult, if not almost impossible, to deliver at any moment on a warrant presented for redemption the actual grain previously deposited. Therefore all grain of the same grade was stored in bulk as received by warehouse and elevator, without regard to particular lots; and contracts were fulfilled by mere delivery of the general warrants.

By 1860 most of the wheat handled in Chicago was duly graded and dealt in by means of general warrant, but it was not until 1874 that this system reached New York. As the classification of cotton is not, and probably can never be, the exact process that the grading of wheat has become, the practice of issuing general receipts never became established in the American cotton trade. Cotton is not stored in vast quantities in terminal warehouses, and the method of warehousing it in New York (placing

¹ See also *The Bankers' Magazine*, October, 1921, p. 473, for discussion concerning negotiability of warrants and warehouse receipts.

it in high tiers with bales of different grades in juxtaposition] renders bale by bale identification with grade difficult. Moreover, it is more expensive to "load in" and "load out" of store; for it cannot be handled in that continuous flow that makes wheat so pre-eminently transportable among the commodities dealt in on the organised markets.

Early grading was of an untrustworthy kind until the produce exchanges for their own protection began to adopt rules to control it; because the efficiency of the inspection and grading system in a market determines, to a very great extent, the size and prosperity of that market. In some cases, in England especially, the exchanges still maintain control, but many States of the American Union, for the protection of the public, perhaps, rather than to help the produce merchants, have made the inspection of the great staple commodities (grain amongst them) a State function. In Illinois the State Board of Railroad and Warehouse Commissions supervises the grading of wheat. In Minnesota and Missouri there are similar commissions. Thus the important wheat markets of Chicago, Minneapolis, St. Louis, and Duluth are specifically under State regulation in this one respect of grading. It is important that this should be so in the case of Duluth; for its standard for wheat is higher than that of the Atlantic seaboard. This ensures that all grain leaving Duluth for Buffalo by lake is what it purports to be, but it puts purchasers for the European markets to the trouble of seeing that a poorer grade is not substituted between the time the grain leaves Buffalo and the time that it is loaded on the trans-Atlantic steamer. In the case, however, of live stock, lard, and pork in Chicago, the Chicago Board of Trade still controls the grading; and the New York Produce and Cotton Exchanges provide for the inspection and grading of the commodities they handle by duly authorised sworn inspectors and gaugers.

There is a lack of uniformity in the grading of grain in different States and exchanges in America which is a considerable hindrance to trade. Each market has its own standards, and attempts to establish uniform grades, in the case of wheat, for instance, applicable to all have not hitherto met with much success. The law of 1916, giving the Federal Department of Agriculture authority to establish grades for cereals in transport in interstate commerce, may accomplish what private agreement has hitherto failed to do. It has already established grades for wheat and maize for use in interstate trade, but had not done so for oats and the other cereals in the autumn of 1919.

The later development of the Canadian wheat fields and the greater centralisation of power in the hands of the Dominion Government enabled the latter to move more quickly than the Federal Government in the United States in the matter of the

storage, inspection, and grading of cereals. Under the Canada Grain Act of 1912, which is administered by the Board of Grain Commissioners for Canada, all wheat grown in Canada and despatched in railway car-load lots or cargoes from elevators must be inspected and graded by Government officials. It is then dealt in, both for the home and foreign markets, entirely on the basis of the inspection certificate and grade.¹ At the terminal elevators (many of which are owned by the Dominion Government) it is weighed, cleaned, and binned according to grade under the direct supervision of inspectors; and a warehouse receipt (which is a general warrant) is issued by the elevator operator to the owner. When the wheat is being sent forward from a terminal elevator it is again weighed and inspected, but it must be graded out as graded in; that is, grain of equal quality must be delivered. Thus, through every stage of movement, identity of grade is maintained, though identity of lot is completely obliterated. Similar arrangements hold good for oats, barley, and flax.

In Liverpool wheat sought to be tendered on "Future Delivery Contract"² must be one of eight grades ("Liverpool grade"), and must be certified as such by the Grading Committee of the Liverpool Corn Trade Association, Ltd. Samples are placed before this committee, who pass the wheat submitted as one or other of the grades allowed or reject it, as the case may be. If the certificate is issued, it is conclusive evidence of standard and quality. Only American Red, Australian, and Argentine wheat are graded for this purpose. East Indian wheat is sold subject to analysis, and River Plate wheat subject to its being a particular weight per bushel at time of discharge. This analysis and weight determination are performed by the association, and appropriate certificates are issued which greatly facilitate dealings in these varieties. In the rules of the Liverpool Cotton Association, Ltd., elaborate provision is made for the classification and standardisation of the various growths of cotton that reach that market. Firstly, standard grades have been agreed on which cannot readily be altered, but to which additions may be made from time to time in a manner carefully prescribed by rule. Samples in duplicate of the various grades have been made up by three appeal committees, dealing respectively with the American, the East Indian, and the Egyptian growths. Of these samples one set (the reserve standards) is kept for the exclusive use of the appeal committee concerned, while the other (working standards)

¹ For many years trading in wheat by sample was prohibited by law in Western Canada, but although it is now permitted and the Winnipeg Grain Exchange provides all the facilities needed, there has hitherto been no business done on this basis.

² For description of such contracts, usually called "futures," see Chapter IV.

is open to the inspection of members on condition of not being touched. Frequent comparison of the two sets is made, and the certified standards in use by the classification committees of the association are compared with the working standards at least once every three months. Samples of cotton for grading are submitted to the appropriate Classification Committee, from whose decisions appeals may be made to an arbitration or an appeal committee. Thus every effort is made to obtain accuracy in what is by no means a simple or straightforward process.

As an illustration of the difficulties to be surmounted in the grading of cotton, and of the possible unfairness to growers as a result of incorrect classification, reference may be made to an investigation conducted by the United States Department of Agriculture in the autumn of 1912. A collection of samples was secured from twenty-one bales sold by a number of different farmers at one of the larger primary markets in Oklahoma. The bales showed a wide variation in grade but a marked similarity in price. They were not sold as one lot, and no two bales were accepted as of equal grade, although the differences allowed for were small. The extreme variation in price was 1 cent per lb., which was not sufficient when the actual range of quality was taken into account. But the most interesting fact was that the lowest price in the group per lb. was paid for that particular bale of the group which was of the highest grade. The difficulties of accurate grading at a stage sufficiently early to enable the grower to get due credit for better quality are enormous. In this case the original grading was rough and ready, with the result that good produce obtained an even smaller price than the more average output of the district.

Coffee is classified and graded according to the quality and place of origin. A special staff for this sole purpose is employed by the New York Coffee Exchange.

The fact that grading is becoming essential in the organisation of trade, even in the case of commodities the market for which is not, and cannot be, highly organised, is illustrated by the growth of systems of grading in the lumber industry, particularly in the Pacific north-western section of the American continent. In this industry it was the lumber mill owners who first felt the need of the protection that careful grading alone can afford. Their output, loaded often for conveyance by sea in an unseasoned condition, was sometimes rejected on arrival at its destination on the grounds that it had deteriorated in transit and was not of the quality contracted for. This they discovered was particularly the case when market changes went against the purchaser before the ship reached its destination. They, therefore, formed an inspection bureau, to the expenses of which lumber mills using its services agreed to contribute. Sworn certificates

of grade are issued; and in case of complaint provision is made for re-inspection on arrival of the cargo. For this latter purpose a staff is maintained, scattered widely at important distributing centres of the timber trade in North America. The fact that the territory which is the seat of this industry includes British Columbia as well as two states of the American Union renders the plan of government inspection impracticable, notwithstanding the fact that it is now the policy of both the Dominion and Federal Governments to assume control in all matters of trade and industry affecting more than one of their component members.¹

The superior economy of buying by grade and "reputation," as compared with buying on inspection or by sample, is apparent not only in the organised produce markets but in ordinary retail trade as well. The growing tendency to put more and more articles into standardised packages, and to regard the shop-keeper as a mere agent of transfer satisfying demands guided largely by widespread advertising methods, helps to save individual buyers the trouble of becoming expert judges of all the commodities they wish to consume. Moreover, this standardisation may in some cases reduce the cost of getting the products to the consumer. The reduction is greater the earlier the stage at which the standardisation takes place; for every inspection at a change of hands involves increasing expense which is passed on to the consumer. The difference, therefore, between the price paid by the consumer and the price received by the producer is greater for commodities which cannot be standardised than for those which are. California oranges, which are graded and standardised as soon as plucked, are a case in point. The cost of getting them from producer to consumer is now very little greater than the transport companies' actual freight charges. Before grading it was a considerable item in the price paid by the consumer.

Where no system of grading is adopted for a commodity which varies considerably in quality, the seller at any stage (if competition is keen) finds himself pressed to supply an article of a somewhat better quality than he has strictly promised. This is the case particularly at the start of new firms which establish a reputation they cannot afterwards maintain, to the injury of older houses and the general public. If, on the other hand, competition is negligible, sellers are enabled to supply inferior qualities; but the monopolistic or quasi-monopolistic conditions necessary for these circumstances are in most cases the results of combination and large-scale manufacture which is compatible only with an output of standardised goods. Consumers, therefore,

¹ Custis, "Timber Grading in the Pacific North-West," *Quarterly Journal of Economics*, vol. xxvi. pp. 538-44.

may still have the advantages of standardisation, though the prices they may be required to pay are quite another matter.

It has been argued¹ that as the State fixes the standards of weights and measures, and issues coins, or otherwise guarantees standards of quality in the case of money, it might logically proceed a step further and guarantee the quality of the commodities themselves, for whose purchase and sale the money is required. In some cases quality is as readily determined as quantity; but in the majority of cases this is not so, and it would not be a simple matter for the State to impose from above grades and methods of standardisation that did not arise naturally in the evolution of the trades concerned. Yet, omitting exceptional and temporary governmental interference, rendered necessary (in all countries) by the war of 1914-18, the Governments of Canada and the United States have definitely assumed the function of fixing standards of quality,² but in most other countries the State confines itself to protecting consumers against adulteration³ and the grosser acts of fraud.

The difficulties attendant on government interference in grading are increased when the commodity is one for which the most important markets happen to be outside the jurisdiction of the official grading authority. Liverpool standard grades of American cotton differ from those in use on the American exchanges which use the standards fixed by an American law of 1915 under the supervision of the Federal Department of Agriculture. Before this Act was passed, the chief of the Office of Markets of the United States Department of Agriculture complained of a constantly increasing tendency to lower the standards in grain under the systems of grading and inspection then in force, and to give the benefit of the doubt to the seller. The result of this practice, which at first glance gives apparent advantage to the grower, was to give the careless producer or the dealer in lower grades better prices for these lower grades, and thus gradually to depress prices on all grades. Purchasers attempted to defend themselves

¹ See Carver, "Standardisation in Marketing," *Quarterly Journal of Economics*, vol. xxxi. p. 341.

² In, for example, the Canada Grain Act, 1912; U.S.A. Grain Standards Act, 1916; Cotton Futures Act, 1915; Grain Grading Laws in Illinois, Minnesota, and other States; Apple Grading Law in Four New England States; and the Apple Laws, 1915, 1917, and Fresh Fruit Laws, 1915, 1917, 1919, of the State of California; etc.

³ Reference may be made to two important cases in which governments endeavour to maintain abroad the reputation of the characteristic products of their respective countries: the Government of Denmark, in the case of exported butter, has instituted a compulsory trade mark to be applied, at the time of testing, by State officials; and wine exported from South Australia for sale as guaranteed South Australian Wine is, in every case, examined before shipment by government experts in viticulture.

by buying on a safe margin, with resulting hardship to the better class of growers who were the very people deserving of discrimination in their favour. "The greatest use of grades at present," he goes on to report, "is in dealings between buyers and between merchants and manufacturers. They are rarely of direct benefit in most crops to the farmer, but serve a useful purpose in settling squabbles between middlemen. This is a condition which deserves early correction. The farmer should be paid for the grade which he produces. Its quality, whether good or bad, is due to his care or indifference. In the former case he deserves encouragement, and in the latter such discrimination as will force him to produce a better product."¹ The most serious abuses arose in cases in which the same grade names were applied to different qualities by different exchanges or associations; for it was then possible for a dealer to buy on one set of grades that exacted high quality and to sell at correspondingly higher prices under less exacting standards. Probably in no other commodity is it so important as in cotton to have a single set of standards generally acceptable throughout the world.²

Under present arrangements, when American cargoes arrive at Liverpool, considerable time is wasted on arbitration and sampling, much of which might be saved if the standards of the two countries were uniform. Yet probably the much-desired general agreement is being delayed by the very haste of the American Government in settling its standards before adequately considering the needs of international trade.

International uniformity of grade, however attained, would, in the case of all commodities, ensure a higher standard of business morality; for exporters and importers, knowing exactly what was required from them, would be less likely than they are now to attempt to supply inferior grades. Moreover, the greater certainty that the best grades would be everywhere recognised as such could not fail to encourage producers in their efforts to grow and market only the very highest qualities.

It may be of interest at this stage to consider some details of the methods and underlying principles adopted in the classification of cotton, wheat, and a few other products that are dealt in on the organised markets.

In general the classification of cotton depends on three factors:

- (1) Colour, whether the cotton is white, tinged, or stained.

¹ *Annals of the American Academy of Political and Social Science*, vol. 1. p. 254.

² A joint committee of Liverpool and American experts was appointed in June, 1921, to make recommendations on this point: *Report of World Cotton Conference, Liverpool and Manchester, June, 1921.*

- (2) Cleanliness, whether free or otherwise from leaf, and comparative absence of extraneous substances.
- (3) Staple, or "the average length of the bulk of the fibres."

White is the normal colour of cotton when picked before the frost sets in and affects the plant. The "tinged" colour is caused by the light frosting of the bolls before opening or by exposure to rain; while "stained" colour is the result of severe frosts and heavy rains. It is to a great extent a matter of individual judgment as to when tinged cotton passes over into stained. The former is a yellowish or golden-orange hue, while the latter is a deep orange or tawny shade. In New Orleans there are very detailed differences recognised in this respect; and distinction is drawn between "spotted," "light tinged," "medium tinged," "light stained," etc.

The staple is found by taking a tuft of cotton and removing the short fibres by drawing it out between finger and thumb. The average length of the remaining fibres expressed in inches gives the result sought. The staple of American cotton runs from $\frac{5}{8}$ in. to $1\frac{1}{2}$ in. That of Egyptian cotton is longer. As a rule, the longer the staple the greater the value attached to the class. If a good strong yarn is required for bleaching, staple is all important; but in other cases colour and cleanliness may be the deciding factors so far as a manufacturer is concerned. One half of the American crop is of staple $\frac{5}{8}$ to 1 in., and is known as "Upland." It is grown in the States on or near the Atlantic seaboard, the Carolinas, Georgia, Alabama, and Florida. The longer stapled cottons, from 1 in. to $1\frac{3}{8}$ in., are grown in the greater part of the Mississippi Valley States and in Texas and Oklahoma. They are named "Gulf" and "Texas" cottons in the trade. Nearly all the longer stapled cotton from $1\frac{3}{8}$ in. to $1\frac{1}{2}$ in. is grown in the part of the State of Mississippi called the Delta and in part of Arkansas. Being raised on the rich alluvial soils in the bends of rivers, it is known as "Rivers" or "Benders." It comprises about 5 per cent. of the total output of an average year. Thus Uplands 50 per cent., Gulf and Texas 45 per cent., and the extra staples (rivers and benders) 5 per cent. are the relative proportions. Therefore, in trading on the cotton exchanges, upland cotton must be given the foremost place and made the basis for all the trading rules, but always with special provision for the more valuable longer stapled varieties. The most valuable cotton of all, the Sea Island variety, grown in islands round the south-eastern coast of the United States, is of a rich cream colour with staple $1\frac{3}{4}$ in. It is always classified separately from rivers and benders and kept distinct from the rest of the American crop.¹

¹ Owing to ravages by the boll weevil "the Sea Island industry has virtually been destroyed": *Report of World Cotton Conference, Liverpool and Manchester*, June, 1921, p. 107.

The term "grade" or "class" in cotton is used solely with reference to its colour and comparative freedom from extraneous matter. From the point of view of the spinner, the dry leaf, specks of dust, bits of husk and so forth, detract from the value; for they have to be removed before he can use it. Cleanliness, therefore, is the predominating factor in settling price and consequently the most important consideration in fixing grade.

The American classification scheme starts from the standard that is regarded as representing a fair average of quality and is called "Middling." Grades better (*i.e.* cleaner) than "Middling" are called "Good Middling," "Middling Fair," and "Fair"; those poorer (*i.e.* dirtier) are called "Low Middling" and "Good Ordinary." The refinement of sub-division of grade is carried further, and "half-grades" and even "quarter-grades" are interpolated between these "full grades." The "half-grades" above "Middling" are "Strict Middling," "Strict Good Middling," and "Strict Middling Fair"; below "Middling" they are "Strict Low Middling" and "Strict Good Ordinary." The "quarter-grades" (the value of which must be the mean of the adjacent full and half-grades) are "Fully Middling," "Barely Good Middling," and "Fully Good Middling" on the ascending scale; and "Barely Middling" and "Fully Low Middling" on the descending scale. The range of grading accepted for "tinged" cotton is smaller than for white; while all merchantable "stained" cotton is called "Middling stained." The scheme then runs as follows :—

I. WHITE COTTON

<i>Full Grades.</i>	<i>Half-Grades.</i>	<i>Quarter-Grades.</i>
Fair	Strict Middling Fair	
Middling Fair	Strict Good Middling	Fully Good Middling
Good Middling		Barely Good Middling
	Strict Middling	Fully Middling
Middling		Barely Middling
	Strict Low Middling	Fully Low Middling
Low Middling		
Good Ordinary	Strict Good Ordinary	

II. TINGED COTTON

<i>Full Grades.</i>	<i>Half-Grades.</i>
Good Middling tinged	Strict Good Middling tinged
Middling tinged	Strict Middling tinged
Low Middling tinged	Strict Low Middling tinged

III. STAINED COTTON

Middling stained

(The grade " Fair " is not often used.)

In Liverpool the half-grades are designated " fully " instead of " strict " as in New York, and there are no quarter-grades. Moreover, the distinction between white, tinged, and stained is made within the one broad classification. The Liverpool list therefore reads—

<i>Full Grades.</i>	<i>Half-Grades.</i>
Middling Fair	Fully Good Middling
Good Middling	Fully Middling
Middling	Fully Low Middling
Low Middling	Fully Good Ordinary
Good Ordinary	Ordinary

contracted usually into Ord., G.O., F.G.O., L.M., F.L.M., Mid., F.M., G.M., F.G.M., M.F., in ascending order of excellence.

It is the custom of the trade in America to arrive at the values of the different grades by reference to the current value of Middling white cotton, and price quotations read so many points on or off Middling, *i.e.* so many hundredths of a cent. per lb. above or below the price of Middling.

In Liverpool the Fully Middling grade is the basis taken, and prices are quoted not with reference to its cash price, but with reference to the price of futures of the current month.¹ So many points on or off there mean so many hundredths of a penny per lb. above or below that price. The classification list for Egyptian cotton in Liverpool reads: Fair, Good Fair, Fully Good Fair, Good, Fine, Extra Fine (contracted into Fair, G.F., F.G.F.,

¹ See p. 157 *sq.*

Good, Fine, Ex. Fine). Further, refinement of grade is obtained by division into the varieties: Upper, Sakellaridis,¹ and Brown. East Indian, Brazilian, Peruvian, and West African cottons are dealt with in a similar manner to Egyptian, but as they are comparatively unimportant details need not be given.

Wheat in Canada is divided, for grading purposes, into five general classes, viz. "No grade," "Condemned," "Rejected," "Commercial grade," and "Statutory grade." By "No grade" is meant all good wheat that is excessively moist and is therefore unfit for warehousing. "Condemned grain" is grain in a heating condition or badly bin-burnt, regardless of the grade it might otherwise be. "Rejected grain" includes all wheat that is unsound, musty, dirty, smutty, or sprouted; or that contains a large admixture of other kinds of grain, seeds, or wild oats; or that for any other cause is not fit to be classed under one of the recognised grades. "Commercial grade" means wheat which cannot be included in the statutory grades provided for in the Canada Grain Act, 1912. Owing to climatic and other reasons, the wheat of one year may vary from that of the preceding year; and some of the crop cannot, therefore, be classified in the same way every season. A standards board has consequently been established by the Act, to define certain grades which may vary from year to year. On the other hand, the statutory grades are fixed and unalterable, and refer to wheat of the highest quality. There are four of these grades for Manitoba Spring Wheat: No. 1 hard, and Nos. 1, 2, and 3 Northern; three each for Alberta Red and White Winter Wheat, and two for Alberta Mixed Winter Wheat. The standards board has defined three additional grades of Western Spring Wheat, viz. Nos. 4, 5, and 6, Northern; but wheat of any of the six grades of Northern may fall under the general categories of no grade, condemned, or rejected. During one recent season, for example, there were five divisions of No. 1 Northern: No. 1 Northern, No. 1 Northern damp, No. 1 Northern smutty, No. 1 Northern, rejected on account of seeds, No. 1 Northern, rejected on account of heat. A similar sub-division applied to the other five classes of Northern, giving 31 grades of Western Spring Wheat alone.² In the same way there were 30 grades of Western Winter Wheat. The Grain Act applies also to oats, barley, rye, and flax-seed, and in an average normal year there are about 30 grades of oats, 15 of barley, and 15 of flax-seed.

¹ Usually referred to as "Sakel." A new variety, Pelion, is about to be added.

² On futures contracts in Winnipeg in 1921, No. 1, Manitoba Northern and higher grade wheats were deliverable without premiums or discounts for quality, No. 2 Manitoba Northern at a discount of 3 cents per bushel, and No. 3 Manitoba Northern at a discount of 7 cents.

As an example of wheat grading in the United States the "Official Grain Standards of the State of Illinois" may be quoted. The list contains six classes—

- I. Hard Red Spring.
- II. Durum.
- III. Hard Red Winter.
- IV. Soft Red Winter.
- V. Common White.
- VI. White Club.

Five of these are further sub-divided—

- I. Into Dark Northern Spring, Northern Spring, and Red Spring ;
- II. Into Amber Durum, Durum, and Red Durum ;
- III. Into Dark Hard Winter, Hard Winter, and Yellow Hard Winter ;
- IV. Into Red Winter and Red Walla ;
- V. Into Hard White and Soft White.

Each of these sub-divisions in turn may embrace two or more grades. Thus there is No. 1 or 2 or 3 Dark Hard Winter, and so on.

On futures contracts in Chicago the seller has a choice of seven (really fourteen) grades, which he may deliver without discount for quality, viz. No. 1 or 2 of the following :—

Dark Hard Winter, Hard Winter, Yellow Hard Winter, Red Winter, Dark Northern Spring, Northern Spring, Red Spring. The buyer need only accept certain No. 3's at a discount, viz. No. 3 of Dark Hard Winter, Hard Winter, and Red Winter, at 3 cents per bushel under contract price, and No. 3 Dark Northern Spring, Northern Spring, and Red Spring, at a discount of 8 cents.

In the actual work of grading wheat the result turns mainly on three points—the "quality" of the grain, the "condition," and the "admixture."¹ The factors determining "quality" for this purpose are soundness, colour, weight, and the percentage of hard wheat. The "condition" depends upon moisture content (which is tested by an ingenious mechanical device) and upon the presence or absence of heat. The "admixture" are tested by a process of sieving and weighing, called in Canada "setting the dockage," and either the cleaned grain or the resulting screenings may be weighed in the determination of the allowance to be made. The Liverpool and London Corn Trade Associations, which often have to grade East Indian and other wheats arriving in this country in a very dirty state, employ girls to handpick over the samples and to remove the pieces of clay and other foreign matter that have found their way in while the grain was in store in holes

¹ See Magill, *Grain Inspection in Canada*. (Publications of the Department of Trade and Commerce, Ottawa, 1914.)

underground just after it was harvested by the small cultivators of the East. Weight per bushel may be determined in several obvious ways; but extreme accuracy and uniformity is secured by the use of a specially constructed machine, the operation of which is a matter of very simple movements requiring little skill or concentration of attention.

British importers of wheat are, of course, familiar with the recognised standard grades of such countries as Canada and the United States, where grading is systematic and the work of impartial experts. They, therefore, purchase largely by grade alone in these countries, and accept "the official certificate of inspection to be final as to quality"; and this condition is embodied in the contract. For trade with other countries, however, and even with the smaller American ports, where the grading arrangements are not so well developed as at the larger ports, other methods of determining quality have to be adopted. Taking, for example, the American Parcel Contract, c.i.f. terms of the Liverpool Corn Trade Association, Ltd., the clauses guaranteeing the quality are—

Official certificate of inspection to be final as to quality;

Of fair average quality of the season's shipments at time and place of shipment;

About as per sample;

one clause to be applicable in each case. The first, as has just been mentioned, has reference to the official grading certificate of the American authorities at the port of loading. In connection with the second, "Of fair average quality of the season's shipment at time and place of shipment," the Liverpool Corn Trade Association (and likewise the London Corn Trade Association) determines standards by taking samples at the port of discharge of all grain which purports to be of the particular standard shipped during the month in question from the particular port. In the third method, "About as per sample," the sample may be one sent in advance and kept sealed after examination by the importer or broker until the arrival of the cargo; or it may be one already in possession of the Corn Trade Association sent from abroad some time previously. The clause in a Liverpool contract for East India wheat specifies the crop and requires it to be "of fair average quality of the season's shipment at time and place of shipment crop . . ."; but the extraordinarily dirty condition of this wheat on arrival in England necessitates an analysis in every case, and this is carried out by officials of the Corn Trade Association, who clean samples and determine the percentage of foreign matter contained therein. River Plate wheat is sold either "about as per sample . . . due allowance being made for handling and smallness of same"; or as "of fair average quality of the season's shipments at time of shipment of the under-

mentioned weight. . . ." The phrase "of the undermentioned weight" has reference to the fact that the several varieties of wheat vary in weight per unit of volume. For milling purposes heavy wheats have certain advantages and lighter wheats are required for mixing with them in order to obtain the best results. In the absence of other aids to the determination of quality, weight per bushel is quite a satisfactory index. Chilian wheat, of which small quantities still occasionally reach this country, is guaranteed "about equal to the official standard No. . . . adopted by and in force with the Liverpool (or London) Corn Trade Association, Ltd., at this date." These standards are based upon the previous crop. Wheat from the Pacific coast of North America is bought "about equal to the official standard No. . . . of (such and such an exchange) of the crop. . . ." In this case the standards are made up at the primary markets of the place of origin, and samples are forwarded to the corn trade associations in this country. A similar method is adopted in the case of Australian wheat, which is sold of quality "about equal to the official standard of . . . Chamber of Commerce of the crop. . . ."

It is obvious that of these methods of grading some are likely in practice to be more advantageous to the buyer and some to the seller, according as the final decision concerning quality is made in this country or abroad. The sample method does not lend itself readily to free market dealings, but is very useful to the expert buyer who requires a high class of definite quality for milling or other special purposes. It also has the merit of enabling the foreign holder of the highest class varieties to reap for the producers the advantage of their special skill in cultivation. For this reason it is sometimes preferred to the "official certificate" guarantee by those American shippers who have wheat of extra fine quality to dispose of. Where there are standards readily accessible in the importing country, free market dealings are facilitated by purchase with reference to them; but there is often a considerable amount of arbitration work arising out of disputes concerning the interpretation of the phrase "of fair average quality."

American exporters complain considerably from time to time of the fact that their foreign buyers desire, whenever possible, to purchase from them on terms which leave the final decision, whether the wheat is of the quality contracted for or not, in the hands of a committee in the importing country on which the buyer's interests are predominantly represented. The buyer, they state, never gets the worst of the bargain in such cases; and the seller can never know the final outcome of the transaction until the arrival of the wheat and the verdict of the committee. Therefore, American sellers refuse, whenever possible, to sell on foreign terms and endeavour to impose their own terms, which are "Loading inspection certificate final" as to quality. Moreover

they declare that the foreign buyer is a buyer of the lower priced article. If he is offered standard quality wheat, with a representation that it will undoubtedly arrive in safe condition, and at the same time is offered an "off grade" at a little lower price, notwithstanding warnings of the extra risk involved, he, almost without exception, buys the cheaper article. Moreover, he is as likely as not to decline the offer to insure for proper condition on arrival at, say, half a cent per bushel, and to assume the risk himself. Then if things go wrong his customer, to whom perhaps he has sold "to arrive," blames "American certificates" and tends to discount the value of the careful American grading.

This kind of complaint on the part of American exporters is probably more justified in the case of maize than in the case of wheat. Before maize can be shipped with safety it must be dried and cured. This takes time, and is not complete, as a rule, before the beginning of the summer following the harvest. If, then, the previous year's crop is exhausted by December 1, as often happens, orders have to be met from the new moist uncured crop. Foreign buyers, though warned and recommended to buy only artificially-dried maize of high grade, often take the lower priced grades and suffer accordingly. Hence there would seem to be good reason for American indignation at the complaints that inevitably follow, especially as every help is given to enable buyers to avoid mistakes. Moisture content certificates are obtainable in all markets. The United States Government maintains laboratories at all important centres of the trade, and nearly all exchanges do the same. For safe shipment in the winter months the specified moisture content must not be above 17 per cent., and in the spring months 14 per cent. Grain kiln dried to a safe shipping condition may always be had at any season of the year, though as summer approaches it dries naturally as it rests in store unshelled.

Coffee is graded with extreme care in all the wholesale markets in which it is the subject of dealings. It is, however, differently classified by the various interests handling it in its course from grower to user. In Brazil, where by far the greater part of the world's supply is produced, it is classed as "Rio" and "Santos" coffee; and these are again sub-divided into "Highland" and "Lowland." These terms are merely geographical designations, without reference to quality. For the latter, each of these four classes is further sub-divided into first, good first, regular first, ordinary first, second, good second, and ordinary second. Non-Brazilian coffee is generally described by reference to its source of origin. There is, therefore, Mocha, Java, Maracaibo, La Guaira, Blue Mountain Jamaica, etc.; but it is not uncommon to classify merely by the size of bean, its colour, uniformity, and cleanliness.

The most widely used classification is that of the Coffee

Exchange of the City of New York, which divides the green coffee as it is imported into nine grades known as Standard Grades, Numbers 1 to 9. Only licensed graders, of whom there are less than thirty, are permitted to grade coffee dealt in on that exchange. To one of them is assigned the duty of providing fresh standards annually, with instructions to "maintain them as nearly as possible on an equality" from year to year. When coffee reaches a licensed warehouse the buyer and seller each selects one grader from the list. If these two graders cannot agree, the case is referred to a board of arbitration consisting of ten experts, three of whom are selected by lot. After comparison has been made with the standard samples kept by the exchange a decision by majority is final. If agreement cannot be reached at this stage, the samples come before the entire board. As soon as the coffee is graded a certificate is issued, which is conclusive evidence of grade for the subsequent six months. The buyer is handed the original, and the seller receives a duplicate. No. 7 is the basis grade for dealings in futures in New York.¹

In Minneapolis, which is a large market for barley, little attention is paid to the grades established by the State of Minnesota for this particular cereal. Barley does not lend itself to standardisation so completely as wheat and maize. Consumers have their individual preferences with regard to colour and condition, so that different buyers often bid different prices on the same sample. Therefore the larger merchants have adopted their own private standards, and, as a rule, sell to the same regular customers year after year. Knowing the needs of their customers, the Minneapolis firms establish certain "types" of barley at the beginning of each crop season. By careful buying and skilful blending they maintain these throughout the season, and sell on the basis of samples supplied to agents and correspondents in other centres. This requires a high degree of skill in buying as well as a large amount of capital tied up in grain and in elevators. Moreover, when business is done in this manner the risk of handling has to be borne entirely by the merchant; for the lack of generally recognised grades always prevents the growth of those fully organised market dealings which are necessary for the work of the expert risk taker.

Oats occupy a middle position between wheat and barley in respect of grading. Large quantities are sold in grain markets in England and America on the basis of official grades; but in both countries there are merchants who establish their own types and who sell them to regular customers on the basis of samples which are altered every season.

¹ Coffee grading in London, in connection with future delivery business in Santos coffee through the medium of the London Produce Clearing House, Ltd., is described on p. 148.

CHAPTER III

THE INTERNAL ORGANISATION OF THE PRINCIPAL PRODUCE EXCHANGES

ON the more highly organised exchanges dealings do not, as a rule, take place directly between original suppliers of produce and purchasers for use. Indeed, one of the reasons for the foundation of such institutions was the attaining of a division of the work of the middleman through whose hands produce passes on its way from producer to consumer. Therefore, among the members of all exchanges there are a number who do not directly belong to either of those categories in the trading acceptation of those terms, but who are specialists in the performance of some or all of the six kinds of services previously discussed.

The position and the privileges of members vary considerably from one exchange to another. In some continental exchanges certain classes of dealers have to give an undertaking not to transact any business, either directly or indirectly, for their own account; and the case of the London Stock Exchange, with its special class of "jobbers," who are forbidden to deal directly with the outside public, is also worthy of note, although in the majority of cases no restrictions of this nature are imposed. Membership of the more important exchanges is a valuable privilege which is often purchased at a high price. This is particularly the case where there is limitation of numbers; and, as might naturally be expected, the price of membership varies with the state of trade.

Many exchanges refuse non-members access to the scene of actual business; and the rules of some of those which permit the presence of outsiders expressly stipulate that the privilege is granted merely in order that clients may advise and consult with the members employed by them to transact their business.

Members when acting as agents on behalf of others in transactions on an exchange are termed brokers; and the remuneration received by them for their services in this capacity is called brokerage.

The question of the exact capacity in which a member puts through a transaction is one of importance, not only from the point of view of brokerage fees, but also from the point of view of

legal liability on the contracts. Some exchanges, in their efforts to discourage gambling on the part of outsiders, insist that all transactions in futures shall be entered into in the names of members only, even if the latter are in reality acting on behalf of others. Such, for instance, is the rule in the Liverpool Corn Trade Association, which, however, in the case of its c.i.f. contracts, permits the name of the principal to be disclosed and to be declared on the form, without requiring that this shall be necessarily done in every case. In this latter respect practice varies from one exchange to another; but obviously the committees of management cannot concern themselves with questions about the solvency and good faith of any chance outsider who may happen to employ their members as agents. Therefore, the general rule is that members are liable on all the contracts put through by them in their exchange, whether on their own behalf or on behalf of others. As guarantee in this respect, security is exacted on admission to membership; and margins, as explained later, are required in most cases in respect of contracts concluded on the exchange. Moreover, further protection is obtained by the system of frequent periodic settlements, as will be seen later.

In the American produce markets, especially on the grain exchanges, the work of introducing the commodity, as it were, to the market is done in either of two ways. A member (firm or individual) of the exchange may simply receive consignments from country elevators to dispose of in the market at a stipulated rate of commission on the selling price, or, as is more usual, at a fee of so much per bushel. Such people are known as commission men. On the other hand, a dealer on the exchange may buy outright from consigners at a distance, and look for his profit to the enhanced price he expects to receive when he sells again on the exchange. These two classes are not necessarily distinct. Circumstances determine in each case what the exact relationship shall be between the exchange member and his customer.

The Liverpool Corn Trade Association (with membership of about 300) dates from 1853, and in its present form is an amalgamation of several organisations having objects similar to those of the combined body. It was incorporated as a company in 1886 and 1897, and now controls the whole of the great wheat trade of the important port where it is situated. Its futures market for wheat and maize is at present the only one of its kind in Europe. Membership is open (*a*) to any person aged twenty-one or over who is a principal in the corn trade and has a place of business in the United Kingdom; and (*b*) to any person residing in the United Kingdom who, although not himself a principal, has full authority to conduct or manage there the business of a principal engaged in the corn trade in, or with, the United Kingdom. An incorporated company is not permitted as such to be a member,

but is allowed to nominate at least two representatives who may trade only on behalf of the company, but who are otherwise on the same footing as private members. All candidates for admission must be approved of by the directors, and must pay an entrance fee of £250, in addition to acquiring a share in the association on election. Ample security is exacted from all new members, and from the representatives of corporations. In addition to the wholesale and speculative business conducted by its members it provides a spot market for the purchase and sale of flour, meal, and cereals in general. Stands are let on hire, and purchases may be made by any person by sample on the two days (Tuesday and Friday) that this special market is in session. It has the usual committees for grading and for arbitration in case of disputes.

In London, as may naturally be expected from its antiquity as a trading centre, produce exchanges have developed differently from those in all the other large markets of the world. From the meetings of a group of merchants engaged in trade with the Baltic ports of Russia there sprang up about 1740 or 1745 a regular association known as the "Baltic," which gradually widened its sphere of operations, until now, as the Baltic Mercantile and Shipping Exchange, Ltd., it handles most of the London business in grain, shipping, oil, and other less important products. Its membership is unlimited in number, and at present amounts to more than 3,000. There is an entrance fee of 50 guineas, and an annual subscription of 20 guineas. No serious obstacle is offered to the admission of any honest merchant or dealer.

Closely bound up with the Baltic, but entirely different as regards membership and management, is the London Corn Trade Association, Ltd., a body dating from 1878 (incorporated as a company in 1886), with objects similar to those of the Liverpool body of the same name. Practically all the London dealers in grain belong to both the Baltic and the Corn Trade Association. Thus import business is facilitated; for shipping can be chartered immediately a deal in grain is concluded, without leaving the building. The large cargo business in wheat which has recently sprung up, owing to the importation by middle Europe of corn which it was prevented by war conditions from producing for itself, is handled mainly on the Baltic Exchange in London.

In addition to the Baltic, there is the Mark Lane Exchange, officially known as the Corn Exchange, London. This is also an old institution, dating back some 170 years, and may be compared to the spot markets and exchanges existing in many of the provincial towns in the kingdom. The standholders are often members of the Baltic as well; and "parcels"¹ are occasionally

¹ See p. 165.

purchased on the latter to be split up into smaller lots for sale in Mark Lane. Samples of flour, meal, and other cereal products are displayed on the stands in this exchange ; whereas the Baltic does not handle flour and does not exhibit samples of grain, this part of the work being performed for the larger wholesale market by the London Corn Trade Association, Ltd., to whose safe-keeping the specimen standards of foreign grains are in all cases entrusted.

Although most of the London import and foreign business in grain is transacted on the floor of the Baltic, it is carried on by means of the official contract forms of the London Corn Trade Association, Ltd. This association, which has an average membership of between 400 and 500, is managed by an executive committee of 25 members, who elect annually a president and two vice-presidents. One-sixth of the committee retire each year, and may not be re-elected before the next annual meeting. Arbitration in case of trade disputes is provided for by an arbitration appeal committee consisting of 35 members divided into five sections, one of which retires annually, but the members of which are eligible for re-election immediately. If a dispute arises under one of the association's contracts it must be referred for settlement to two arbitrators, one appointed by each party to the dispute. The two arbitrators, who must be principals engaged in the corn trade resident in the United Kingdom, and members either of the association or of the Baltic or of the London Corn Exchange, may appoint a third, and the award of any two of these is final, subject only to the right of either party to appeal.

The Liverpool Cotton Association, Ltd., under whose supervision practically all the cotton reaching England is handled, dates from 1882 in its present form, and is the central world market for raw cotton of all growths. Membership is obtainable by election and payment of entrance fees, together with the acquisition of a share in the association, and also one in the Liverpool Cotton Bank, Ltd. Firms and partnerships are qualified for all privileges if one of their number is a member. In addition to full members, who now amount to about 570, there is also a class of associate members, for election to which any person over twenty-one years of age, engaged as a principal in the cotton trade in the United Kingdom, is eligible. This class may also admit members (resident in the United States) of the New York or of the New Orleans or other cotton exchanges in the United States, as well as members of The Syndicat du Commerce des Cotons du Havre, resident in Havre, and (up to April, 1916) members of the Bremer Baumwollbörse, resident in Bremen. Thus all the dealers in cotton in all the important centres of the trade can keep in close touch with Liverpool ; and transactions can be carried out between

them, with Liverpool as headquarters, precisely as if there was at any moment just the one cotton centre in the world. The association has appeal committees, arbitration and classification committees, an American quotation committee, a trade supervision committee, and a benevolent fund. Moreover, a clearing house (in conjunction with which is the Liverpool Cotton Bank, Ltd.) is maintained for the purpose of facilitating the transmission of documents, payments, and settlements between members. This somewhat elaborate organisation is necessary, in view of the vast amount of both spot and speculative business carried through, and ensures the smooth working of what is the most perfect market in the world.¹

In the year 1908, with the help of some members of the Liverpool Corn Trade Association, arrangements were made for the establishment of a grain future delivery market at Buenos Aires to handle the large surplus of cereals usually available for export from Argentina. The grain traders there had already formed an association with substantial backing, and it was this body that was utilised for the purpose of organising the new market. Every transaction between members of its own body is recorded by the association, which, upon payment by each party of the requisite margin, takes up the contract and assumes all responsibility for its fulfilment. Therefore no member is responsible to any other after the contract is duly recorded, but only to the association itself. This simplifies dealing very greatly, and dispenses with the need of complicated "clearing" arrangements. Buenos Aires is remote from the wheat, maize, and linseed areas in Argentina; therefore the custom on the whole is to retain produce at the up-country stores (*afuera*), and inform the grain association that it is available for disposal. As the business is entirely an export one a buyer, on being notified, requests delivery alongside the ocean steamer as provided by the contract. The seller may deliver from warehouse in Buenos Aires if he likes, but the outward movement from the *afuera* provides material during the greater part of the year for the fulfilment of contracts. The advantages to growers resulting from these new arrangements are numerous. They have a definite market to deal with, and can sell for delivery when transport can be provided. They are freed from dependence on itinerant agents and middlemen, and have full and reliable information concerning every movement in the world market for their products. Poor harvests, and the prohibition of exports during part of the war period, have restricted rapid expansion; but the revival of international trade will doubtless soon restore the prestige of this newly organised centre. A similar market has

¹ There is a small cotton exchange at Alexandria, Egypt, which is very closely allied to the Liverpool market.

been set up at Rosario Santa Fe in the chief maize-growing district of Argentina.

In Germany the majority of the exchanges (*Börsen*) are modelled on the pattern of that in Berlin, whose organisation was prescribed by Government decree dated 1885. In accordance with this ordinance there is but a single exchange in Berlin divided into two sections, one for securities (*Fondsbörse*), one for produce (*Produktenbörse*). A third section for manufactured goods (*Warenbörse*) was originally contemplated, but proved unworkable after a short trial, and was abandoned in 1888. The corporate body of merchants of the city (*Kaufmannschaft*), acting through its committee (*Ältestenkollegium*), appoints the governing body (*Börsenkommissariat*), part of which is always selected from the *Ältestenkollegium* and part from the ordinary members of the *Kaufmannschaft*. This governing body has the usual disciplinary powers and full responsibility for the conduct of the exchange. It sits in two parts, corresponding to the division into a *Fonds-* and a *Produktenbörse*.

Admission cards to meetings of the exchange, for which a regular subscription of moderate amount is required, are granted only by the *Ältestenkollegium*. As a general rule no difficulty is experienced by persons of standing in obtaining cards, but non-members of the *Kaufmannschaft* must be recommended in writing by three members of that corporation. Two arbitration committees are provided, one for each section, with power to adjudicate in all disputes arising out of business transactions in the exchange. They are selected from panels composed partly of members of the *Börsenkommissariat*, partly of general members of the *Kaufmannschaft*. The chairmen are always selected from the first group, and the constitution of the committees, which consist of three members each, is altered every month. Of the brokers, some are official and some private, but both classes can transact all kinds of business. The official brokers are appointed by the *Börsenkommissariat*, but State ratification is required in every case. They enjoy certain privileges, and at the same time are subject to certain limitations. Their book entries and contract notes are legal evidence of their transactions; they possess the right to put up for public auction the articles enumerated in their authorisation certificates; and they can claim a share in the compilation of the official price lists for which the *Börsenkommissariat* is responsible. On the other hand, they are forbidden to transact business on their own account or on behalf of absent clients. They cannot do business on behalf of others in their own names, or accept any responsibility for the fulfilment of bargains in which they are intermediaries. In practice, however, these restrictions tend to be disregarded, owing to the very serious hindrance they would impose on legitimate business. Next in importance to

Berlin are the exchanges in Hamburg, Bremen, and Frankfort-on-Main, that in Hamburg being mainly a *Produktenbörse*, and in Frankfort-on-Main a *Fondsbörse*.

Except in the case of the Prussian exchanges, State ratification of the appointment of official brokers is not required, but restrictions on this special class seem in practice to be relaxed in Berlin to a greater degree than elsewhere.

The produce exchanges of France and Holland present no special features as regards internal organisation. Brokers on the French exchanges have the privilege of sharing in the compilation of official price lists and of holding public auctions. They are attached to their local chambers of commerce, and are subject to the discipline imposed on them by committees elected from their own body. In Holland the municipalities exercise a nominal supervision over the exchanges and make appointments to the position of broker, but otherwise the markets are free to all for the transaction of every kind of business.

Foremost among the important produce exchanges of the North American continent is the Chicago Board of Trade. Organised in 1848, it received a charter from the State of Illinois in 1859, and has grown in importance and prestige with the development of the city and the Middle West. Its objects, as expressed at the time of its foundation, were "to maintain a commercial exchange; to promote uniformity in the customs and usages of the merchants; to inculcate principles of justice and an equity in trade; to facilitate the speedy adjustment of business disputes; to acquire and to disseminate valuable commercial and economic information; and generally to secure to its members the benefits of co-operation in the furtherance of their legitimate pursuits." Its charter grants the usual rights of corporations, and permits its members "to establish such rules, regulations, and by-laws for the management of their business and the mode in which it shall be transacted as they may think proper."

The right was also granted to appoint inspectors to "examine, measure, weigh, gauge, or inspect" such articles of produce as the members may deal in, the certificates of such inspectors to be binding as to quality and quantity upon the members of the corporation. This provision has, however, since been partly superseded by the law which places the inspection and grading of wheat in the hands of officials appointed by the State, some of whom now, under the provisions of the Federal Grain Inspection Law of 1916, receive Federal licenses from the United States Department of Agriculture, and are public officials entirely independent of the exchange.

Perhaps the most interesting, and at the same time most important, portion of the charter is the provision made for an arbitration committee.

" Said corporation may constitute and appoint Committees of Reference and Arbitration and Committees of Appeals, who shall be governed by such rules and regulations as may be prescribed in the Rules, Regulations, and By-laws for the settlement of such matters of difference as may be voluntarily submitted for arbitration by members of the Association, or by other persons not members thereof; the acting Chairman of either of said committees, when sitting as arbitrators, may administer oaths to the parties and witnesses, and issue subpoenas and attachments, compelling the attendance of witnesses, the same as justices of the peace, and in like manner directed to any constable to execute.

" When any submission shall be made in writing, and a final award shall be rendered, and no appeal taken within the time fixed by the Rules or By-laws, then, on filing such award and submission with the Clerk of the Circuit Court, an execution may issue upon such award as if it were a judgment rendered in the Circuit Court, and such award shall thenceforth have the force and effect of such a judgment, and shall be entered upon the judgment docket of said court."¹

The business of the exchange is done between 9.30 a.m. and 1.15 p.m., and membership runs to between 1,700 and 1,800. It is, next to Liverpool, the foremost speculative market in the world for wheat, but much business is done also in maize, oats, live stock, lard, and pork.

It is governed by a president, two vice-presidents, and fifteen other members, constituting a board of directors eighteen in number, who have the power of electing new members. Seats by transfer sold for 500 dollars to 1,000 dollars in 1896, and rose to 4,700 dollars in 1919.

The New York Produce Exchange is a body of somewhat similar constitution, with a membership limited to 3,000. It has existed under different names since 1850, but it was not incorporated until 1862. Its objects are similar to those of the Chicago Board of Trade, with the not unimportant addition—to make provision for the widows and families of deceased members. It is managed by a board of managers, consisting of a president, vice-president, and treasurer, elected annually, with twelve other members who sit for two years, one-half retiring each year. Standing committees, one for each of the commodities dealt in, are appointed for conducting the ordinary general affairs of the exchange. Membership is obtainable by purchase of a certificate of membership at a price varying with the demand, and by the payment of a small transfer fee after ratification by the board of managers, the only qualification specified being that the candidate is a "respectable person." The powers conferred by charter on the arbitration committee of this exchange are unique, and have won for it a position of great influence and dignity in the

¹ Sections 7 and 8 of Charter, reprinted in *Annual Report*, March, 1921.

commercial world. The practical result is the substitution of the arbitration committee for the ordinary law courts in the case of business disputes between members; and awards, when filed according to legal procedure with the Clerk of the Supreme Court of the City and County of New York, may be acted upon just as if they were judgments of the Supreme Court.

The present membership is close on 1,900. Wheat, flour, lard, linseed, petroleum, hops, butter, cheese, and cotton-seed oil, are dealt in; and the exchange takes a leading part in furthering New York's commercial interests. In this way, with its committees on canals, exports, railroads, etc., it resembles the chambers of commerce in British commercial centres, but its activities in this respect must be distinguished from those of the New York Chamber of Commerce, which is a body dating from the old colonial times.

Each of the various trades, such as the wheat trade, cotton-oil trade, and so on, is to all intents and purposes an exchange by itself. It has a recognised meeting place on the floor, and its committee interprets its rules and decides all disputes under its rules, which are made by the particular trade section itself, subject to the approval of the whole board of managers.

Side by side with the Produce Exchange in New York there are a Cotton and a Coffee Exchange, dealing each in its one special commodity only.

The very great importance of the cotton crop in the trade of the United States is indicated by the high price of seats on the New York Cotton Exchange, a price above that for seats on all the other American produce exchanges and most of the American stock exchanges. Second only to the Liverpool Cotton Association in importance in the world's cotton market, it was incorporated and granted its charter in 1870, the year in which a smaller but similar exchange doing business in a practically identical manner (the New Orleans Cotton Exchange) was established in the south. It is managed much in the same way as the other American exchanges, but instead of several grading committees, one for each of the different commodities dealt in, it of course requires but one classification committee. Provision is made also for a "Quotation Committee," a body not found in many of the other exchanges, whose duties will be discussed later.¹ The governing body is called the board of managers. Membership is limited to 450, with initiation fee of 10,000 dollars. Seats have been sold for as high as 25,000 dollars, but the average price runs to between 10,000 and 15,000 dollars.

The "Coffee Exchange of the City of New York" was incorporated in 1887, and derives its importance from the fact that the

¹ It used to be the body entrusted with the duty of "fixing differences" in connection with transactions in futures, see p. 60.

United States is one of the largest annual consumers of coffee per head of population among the civilised countries of the world. Her share in a recent year (1919) amounted to 13 lb., being exceeded only by Holland with 15.2, whereas the figure for Germany was 5.2, for France 4.3, and for the United Kingdom as little as $\frac{1}{3}$ lb. This exchange is managed similarly to the New York Cotton Exchange. Its membership is limited to 500, but the price of seats is small, except when, as was the case in 1920, there is abnormal speculative activity in coffee. The initiation fee is 1,000 dollars.

Owing to the readiness with which wheat and other cereals lend themselves to organised dealings, organised grain markets have sprung up in several other centres in the United States, those at Minneapolis, Kansas City, Duluth, Toledo, and St. Louis being the most important.¹ To facilitate communication with one another and with New York and Chicago, and thus to obtain one single market for wheat in the United States, all the American wheat exchanges are in session simultaneously, so that the New York Produce Exchange is open from 10.30 a.m. to 2.15 p.m., allowing for the difference in time between New York and the other remaining centres, which are all further west, and are open from 9.30 a.m. to 1.15 p.m. This results in wheat prices in any two centres differing only by cost of transport from one to the other, and accounts for the fact that New York normally quotes standard grades 6 cents a bushel higher than Chicago. Each of these minor centres has its speciality, e.g. Toledo—red winter wheat; Kansas City—hard winter wheat; St. Louis—winter wheat; and Minneapolis—barley. At the same time the latter exchange is in wheat second only to Chicago in the United States. It has 550 members, and seats are sold for upwards of 3,000 dollars.

For its diagram representing wheat price statistics the United States Department of Agriculture, in its weekly *Market Reporter*, averages the quotations of Minneapolis for No. 1 Northern Spring Wheat, and Chicago, Kansas City, and St. Louis for No. 2 Red Winter Wheat. It is evident, therefore, that these are the four most representative of the American primary grain markets; but in addition to Duluth and Toledo, already referred to, the Omaha Grain Exchange and the Buffalo Corn Exchange are worthy of mention. The exceptional position of Buffalo as a distributing centre, and the large transshipment business in wheat conducted there encouraged the grain merchants in 1906 to establish an organisation exclusively devoted to their own special interests. An entirely cash trade is conducted, with considerable advantage

¹ Toledo Produce Exchange; Chamber of Commerce, Minneapolis; Duluth Board of Trade; Merchants' Exchange of St. Louis; Kansas City Board of Trade.

to the flour-milling industry, of which Buffalo is a centre second only in importance to Minneapolis.

In 1883, the year in which the first cargo of wheat was shipped across Lake Superior from Western Canada, an unsuccessful attempt was made to establish a grain exchange in Winnipeg, and it was not until 1887 that the Winnipeg Grain and Produce Exchange finally succeeded in beginning business in a small way. This organisation was incorporated in 1891 by Act of the Manitoba Legislature, but its charter was subject to amendment from time to time by provincial legislation. In 1907 the grain trade got into trouble with the Manitoba Government, and in the following year, as a result of the passing of an amending act, the exchange was dissolved as an incorporated body and reconstituted as a voluntary non-incorporated association under the title of "The Winnipeg Grain Exchange." Under these new conditions it became "a self-governing institution founded on the consent of its members based upon a mutual contract set forth in its constitution and independent of any charter. As such it has remained from 1908 until now." ¹

In 1921 its 355 members held between them 402 membership certificates, and of the 317 members who were actively engaged in the grain trade 267 were primarily engaged in the handling and marketing of "cash grain" ² and 50 in futures trading. The remaining 38 members comprised 8 bankers, 3 officials, 10 vessel and insurance agents, and 17 non-active members. The vessel and insurance agents represent transport interests which provide lake tonnage and marine insurance. Membership is obtained by purchase either from a member who is selling out or from the association itself. The latter at present charges 7,500 dollars, but 5,000 or 6,000 dollars as a rule is the price received by a retiring member for his place. In every case an applicant must appear before a committee and be elected by ballot at a meeting of the council of management of the exchange. Annual dues of 80 dollars from each member constitute the main source of revenue of the association.

As a market for futures the Winnipeg Grain Exchange is insignificant compared with the Chicago Board of Trade; but owing to the fact that most of the very large quantity of wheat grown in Western Canada is marketed in Winnipeg, it is probable that the latter is now one of the largest spot wheat markets in North America.

Commission rates are fixed by the rules of all exchanges. In

¹ *Report on the Winnipeg Grain Exchange, September 10, 1921.*

² "Cash grain" in Canada is wheat actually in store at the head of the Lakes finally graded and ready for immediate shipment to the consumer. It is also termed "spot" wheat, and its price is the "cash" price quoted on the Winnipeg Grain Exchange.

the Chicago Board of Trade, for example, $\frac{1}{4}$ cent per bushel is usual in wheat transactions, but the rate is reduced by one half for corporations with one director or shareholder who is a member of the board, a privilege granted also to members themselves or firms with one member on the board. In the New York Cotton Exchange there is an elaborate scale dependent on the price of cotton, and on whether the name of the principal on whose behalf the broker acts is disclosed or not. An addition is made for residents outside Canada and the United States, while members pay only half fees for their own transactions.

Five dollars per unit of coffee, *i.e.* 250 bags, each weighing 132 lb., is the commission charged by members of the New York Coffee Exchange.

In the Liverpool Cotton Association, when a member is employed as a broker, the minimum rate of brokerage for buying or selling cotton invoiced on spot terms is $\frac{1}{4}$ per cent., which is also the rate payable by non-members, in the case of cotton bought or sold for future delivery. Members and associate members in the latter case are entitled to half-rate, and there are other minimum scales for the different combinations that may occur of member, associate member, non-member, resident in the United Kingdom, resident outside the United Kingdom, and future delivery. The general principle underlying the scheme is that members are entitled to lower rates than non-members, residents in the United Kingdom to better terms than residents outside, while transactions in Egyptian cotton and spot dealings are usually put through at double the rates for American cotton and future delivery respectively.

Somewhat similar rules hold good on all the other exchanges respecting their brokerage charges; and most of them have exceedingly strict provisions against fraud or dishonest practices on the part of their members. They all require that orders must be executed in the open market, and that no business belonging to customers shall be taken over by brokers for their own account. Expulsion is the penalty for making or reporting any false or fictitious purchase, or sale, or for attempted extortion. No member is permitted, under any circumstances whatever, to be both principal and agent in any transaction. Moreover, no member may, by his own act or by the act of another member or broker, become agent for both seller and buyer.

Thus a standard of commercial honour is maintained very much higher than would be the case were there no such bodies to keep sharp practices in check.

CHAPTER IV

SPOT TRANSACTIONS, FUTURES, PRIVILEGES

BUSINESS in all the more highly organised exchanges is conducted in two ways; firstly, through dealings for immediate delivery of recognised grades of commodities or of produce actually inspected or sampled—"Spot transactions"¹; and secondly, through dealings in which neither immediate payment nor immediate delivery is contemplated—contracts for deferred delivery and so-called "futures."

Spot transactions, by their very nature, imply the present existence of the commodity in question and necessarily represent goods actually on hand or instantly available at the time the contract is made. Moreover, they invariably contemplate an immediate or an approximately immediate delivery.

The system of futures trading is based on contracts on the part of the seller to deliver and consequently on the part of the buyer to receive, at a time subsequent to the making of the contract, a certain quantity of the produce at a stipulated price. The fact that the seller, by means of a spot transaction at the time of delivery, may find himself able to purchase produce at a lower price, and thus fulfil his contract at a considerable and possibly unforeseen profit to himself, renders his transaction speculative. This is, therefore, the concept to be attached to the word speculation, when it is used in reference to dealings in these organised markets. Dealings in things, the future prices of which are highly uncertain, are only possible on a large scale when competition is keen and demand is both extensive and fairly "inelastic."² Consequently it is in the case of products such as wheat, cotton, and maize that speculation has reached its greatest development and that market organisation has attained its highest perfection. Such speculation is always associated with futures, and is conducted under certain fixed conditions on all the exchanges where it is permitted.

¹ French, *marchés au comptant*; German, *Complantgeschäfte* or *Loco-geschäfte*.

² The demand for a commodity is said to be inelastic when quite a considerable change in price does not cause much alteration in the quantity sold.

It is not every bargain, the fulfilment of which is contracted to take place at some future date, that can be regarded as constructively speculative in the technical economic sense above described. Such bargains are regularly made every day in all departments of human activity and call for no special consideration, merely because, from the nature of the case, they are incapable of instant fulfilment. The dealing in a cargo of wheat actually on passage which may be sold in anticipation of its arrival does not constitute a transaction in futures. A builder who signs a contract to erect a house for an agreed sum undertakes a future delivery of goods, but he is not a speculator in this special sense; whereas the builder who erects houses with careful forecasts of the cost, intending to sell them when finished for what he can get, is properly referred to as a speculative builder. Speculation takes place when an anticipated difference in the present and future prices of any commodity afford an opportunity of a possible profit. It is the fact that the price in the future cannot be accurately forecasted, while at the same time an agreement is entered into in the present as to its amount, that forms the essential basis of all speculative contracts. No business is properly speculative in this special sense unless there is involved the necessity of estimating in the present the probable amount at some future date of a price which is subject to frequent fluctuations.

Speculation in the non-technical sense, buying property outright and holding it for a rise, has been universal since civilisation attained a stable foundation. Something like speculation in the narrower sense is thought to have existed at Rome under the Empire; but it is not until the early part of the seventeenth century that futures of the modern pattern first make their appearance, and that was in connection with the Dutch Whale Fisheries, when the products of voyages were sold long before the ships returned. Speculation in bulbs was common in the third decade of that century, and towards its close time dealings in corn were forbidden in Antwerp. A speculative market in coffee, grain, and a number of other commodities existed in Amsterdam in the early part of the eighteenth century, but it was quite the middle of the nineteenth century, the period of great expansion in foreign trade, before dealing in futures assumed the importance it now possesses. In this it was helped by the introduction of the telegraph and fast mail steamers, by which news was enabled to travel more quickly than the commodities themselves from place of origin to place of sale. Thus, not only the existence of produce became known, but fairly accurate estimates of its amount were available months before it could arrive. To solve the problem of distributing, at a fair price, a world supply, whose amount was approximately known beforehand, required dealings at places of greatest demand in stocks not present at the moment. It was

inevitable, therefore, that at such centres there should take place great numbers of transactions of a kind other than spot transactions. The growth of futures was the natural consequence of such a combination of circumstances. A further contributing cause was the need for produce importers to have quick returns, and their consequent inclination to welcome a system which can be worked so as to exclude credit altogether.

Futures dealing in a small way existed in European markets as early as the thirties of last century ; but it is, as a matter of fact, to an early form of contract in the grain trade of the United States that the modern system owes its origin, although an exactly analogous transaction was common in iron warrants in Glasgow at the same time. When large quantities of wheat or iron had been stored in the elevators or the railway yards, and receipts for them had been issued, the holders endeavoured from time to time to raise money on their stocks. At first this borrowing was from necessity, particularly in the case of the Scottish ironmasters, who were not always able to market the whole of their output. After some time it came to be seen in the grain trade that any one looking for a fall in price could sell wheat which he could deliver by means of borrowed warrants endorsed by the holder, expecting to be able to replace them, when it was necessary to return them, by purchases of warrants at the anticipated lower price. This was possible, for there was never any obligation to return the identical warrants loaned, but merely warrants for the same amount and same grade of wheat. It is obvious that in such a system the extension of transactions of this kind was limited by the number of warrants available for borrowing, even though it was possible for a single warrant to serve for the satisfaction of an indefinite number of contracts. This form of transaction is the normal " short " sale on the American stock exchanges, and is the one usually suggested as substitute for the present form of futures on the produce exchanges by those who wish to reform the abuses that have recently appeared in the latter. A " short " sale is one made by a person who, in anticipation of falling prices, sells for forward delivery what he has not got, intending to make delivery with goods bought later at a lower price. On the New York Stock Exchange the procedure is as follows :—

(a) X sells securities he does not own to Y. (b) X borrows securities from Z and hands them to Y, who is quite unaware of their origin and is not concerned with it once he actually gets possession. (c) X goes into the open market, buys securities of the same kind of equal amount from any broker W, and hands them over to Z, thus closing the transaction.

The possibility of combination on the part of the W's is always present to act as a restraint on the X's, and it is maintained

that it was the hardship of this restraint on trade that hastened the adoption of the futures system on the produce exchanges, in which it is no longer necessary for an X to make immediate delivery of warrants, warehouse receipts, or other titles to the goods, but rely merely on finding a W, or (what is far more frequent) another X at the moment he needs them.

Failure of the X's to find W's when required, or rather, successful combination on the part of the W's and refusal to accommodate the X's except on prohibitive terms, constitutes a "corner." Therefore the narrower the range of grades or qualities constituting good delivery on a futures contract the greater the danger of corners. All contracts on the produce exchanges specify the grade as well as the quantity, and, as a rule, only a delivery of that grade or some grade very near in quality is accepted in settlement. This specified grade, known as "contract" or "standard" grade, must therefore be thoroughly representative of the commodity, be widely distributed, and readily obtainable when required. When it is necessary to tender another grade within the range permitted, allowances are made to the buyer or to the seller according as the quality is inferior to or better than the standard. The basis on which these allowances are calculated is of considerable importance, and has been the subject of legislation even in countries where there is otherwise no tradition of governmental interference with trade.

In addition to specification of grades, there are, on all the exchanges, recognised amounts deliverable on futures contracts. Fixed units of amounts constitute one lot, which, except in very rare cases, cannot be sub-divided on the particular exchanges concerned. For example, the unit in cotton in Liverpool is 100 bales=48,000 lb. in the case of American cotton, 50 bales=36,000 lb. in the case of Egyptian; in wheat, 5,000 centals; for wheat in Chicago and New York, 5,000 quarters is the unit; for coffee in New York, 250 bags=32,500 lb., and so on. Slight variation from correct weight does not vitiate delivery, and is usually allowed for at the closing price on the day of tender of delivery.

For the time of fulfilment of a futures contract certain limits are rigidly fixed in all cases. Since produce comes to the markets somewhat irregularly, though on the whole continuously, it cannot usually be promised for delivery on any specific date. In America the practice is to classify futures according to months, that is, to allow the seller the option of delivering on any day of a month agreed on after due notice to the buyer. Delivery cannot be made before the first day of the month, but on the other hand, it must be made on or before the last day of the month. The choice of date rests invariably with the seller. So

universal has this practice become of specifying futures in the United States by means of the delivery month that phrases such as "December wheat," "September delivery," "June option," meaning futures to be fulfilled in those months, are in common everyday use.

European practice is not so stereotyped in this respect. In Liverpool the delivery period in the case of cotton futures used to be two months, and thus there were May-June options, June-July options. In Paris the period for wheat may be two, four, or six months—for example, the four *premiers mois*, January to March, or the four *chauds mois*, May to August; while in Germany, when dealing in futures was permitted, two specially fixed periods, March-April (the *Frühjahr-Termin*) and September-October (the *Herbst-Termin*) were commonly employed. In all these cases, except for the differences in the length of the period, delivery is effected just as in America. Having regard to these characteristics, shared by all agreements concerning future delivery in the chief exchanges of the world, a definition may be given which is sufficiently precise for the purposes of discrimination between mere contracts for forward delivery and futures proper. A futures contract¹ is a contract in an organised market drawn up in a form standardised by the controlling authority of that market, referring never to specific lots of produce, but prescribing the unit of amount and quality, while leaving to the contracting parties the determination of total amount, price, and time of delivery, it being understood that the choice in the latter case has reference only to a definite period of time stated in the contract, and that these periods are prescribed by custom or the market authority and not arbitrarily selected by either of the parties to the bargain.

The volume of dealing in futures on the exchanges is enormous compared with the actual amount of the commodity marketed.² This is a natural consequence of the facilities offered by the system, whereby a buyer who does not wish actually to accept delivery may sell an equal amount long before the delivery period and then

¹ Also called a terminal contract, a contract for *future* (not "forward" or "deferred") delivery, a future, and (in the North American grain markets especially) a trade. French, *Opération à terme* or *marché à terme*. German, *Termingeschäft*, "Das Termingeschäft ist also äusserlich nur ein genauer formuliertes, durch Börsenusancen reglementiertes, Zeit- oder Lieferungsgeschäft." Fuchs, *Der Warenterminhandel*, p. 4. See also Sondorfer, *Die Technik des Welthandels*, pp. 16-19.

But a *Termingeschäft* may be either a *Fixgeschäft*, a futures contract proper, or a *Prämiegeschäft*, a privilege; and a *marché à terme* may be either a *marché ferme* or a *marché à prime* in the same way.

² E.g. on the Winnipeg Grain Exchange between September 1, 1920, and April 21, 1921, the total volume of futures dealing in all grain was about 6½ times the volume of the actual grain that reached a marketable position; and the Winnipeg market for futures is far from being an active one.

offset one transaction against the other. Indeed, a contract may change hands on some exchanges a score of times before final settlement is made, and every "passing on" involves another addition to the total number recorded of dealings in futures. It is asserted that the larger the volume of futures dealing in any particular market, the better that market fulfils its real purpose; for the more frequent the bids and offers of traders, the keener is competition and the more delicate is the adjustment of price to genuine supply and demand.

Closely allied to futures proper (which, as explained, are bargains for delivery at a definite price within a definite future period of time) is the contract which confers the right to demand that such a bargain shall be entered upon under circumstances which may be, but usually are not, set forth. This type of contract is called a "privilege" or "option," because what is purchased by one of the parties to the bargain is the privilege or option of buying from, or selling to, the other party a certain amount of a certain commodity at a certain price. The fact that in a futures contract proper the seller has the option of selecting the day of delivery within the period agreed on has caused the word "option" to be applied indiscriminately to both types of contract — "December option" having come to mean an ordinary transaction in futures for which December is the month of completion. To avoid confusion, therefore, a distinction not always made in practice will here be adopted. Privilege or option will be taken to mean the second type; but where the term "option" is qualified adjectively by the name of a month, the reference will be to futures proper, whose time of delivery is that particular month. This, though not in strict accordance with commercial usage, will at any rate be unambiguous. A privilege¹ or option, then, is a contract by which one of the parties acquires the right, without, however, incurring the obligation, to buy from or sell to the other party a certain amount of a certain commodity at a certain price. Such contracts are obviously of two kinds according as the right acquired is one to buy from or one to sell to. The former are termed "Calls," the latter "Puts." A call, therefore, is an agreement giving the buyer the right to call upon the other party to deliver a certain amount of produce at a fixed price within a specified time. Calls are used by those who have sold what they do not own (short sellers or bears). Suppose a dealer has sold certain produce at a certain number of points (say 50) per unit (in cotton, e.g. at so many hundredths of a penny per lb.) which he expects to be able to buy later on at a lower price, thereby making a profit. Desiring to protect himself against a sudden rise or against a possible corner, he finds that, for a certain sum, he can buy a call enabling him to get produce at 52. If the price rises to

¹ French, *marché à prime*; German, *Prämiegeschäft*.

56, he requires the seller of the call to deliver to him at 52. Thus his loss is limited; for he cannot lose more than two points per unit however much the price rises, plus, of course, the sum he paid for the call. In such a transaction the cost of the call is largely in the nature of a premium for insurance against heavy loss (in this particular case against a loss of more than two points per unit). Calls are also used by dealers who think that the price of produce will rise above the price named in the call. They are not at the moment in a position to take advantage of their superior knowledge of the market. Therefore, rather than miss this chance of profit altogether, such speculators purchase a call whereby they obtain the right of demanding delivery at a price lower than the new market price. Thus when they sell the produce delivered to them they realise their anticipated profit, less the price paid for the call.

EXAMPLE OF A CALL

Chicago,

July 1, 1921.

FOR VALUE RECEIVED the bearer may CALL on me for ten thousand (10,000) bushels of WHEAT (Contract grade) at 98 cents per bushel any time within fifteen (15) days from date.

JONATHAN JONES.

Expires *July 15, 1921.*

1.15 p.m.

A put, on the other hand, is an agreement giving the buyer the right to deliver to, or put on to, the other party a certain amount of produce at a fixed price within a specified time. It is a contract made always with a view to a fall in price. Suppose a dealer anticipates that the price of a commodity will fall, and that he desires to profit by this decline in price. He purchases a put, therefore, from some one else entitling him to demand that the latter shall accept delivery of a stated quantity of the commodity within a given time at a price which is named. If his expectation is realised and the price falls, he can purchase in open market the quantity mentioned in the put at a price below that at which the seller of the put has undertaken to buy it. Thus, by exercising his privilege, he will make the difference between the price at which he bought the produce and the price at which he sold it under the put agreement, minus, of course, commission charges and the cost of the put.

A combination of a put and a call is termed a "straddle" on the American exchanges. It gives the purchaser the privilege of either putting or calling the produce at the named price within a given period. If different prices are named for the put and for the call, the privilege becomes a "spread," but this term "spread" is also used in another connection to describe arbitrage operations

in commodities when there is more than the normal difference in prices between the two markets. These double privileges are used by dealers who wish to profit by a change either up or down in the market price. They are not so common in the produce markets as on the stock exchanges in America, but their use in the grain markets seems to be growing. The spread is the more usual of the two. Double privileges can only be purchased when those who sell them anticipate a stagnant market in which the price will not move sufficiently to induce the buyers to exercise their options. If the market moves only within the limits named in the contract, the buyer does not exercise his option and loses what he paid for the privilege, while the seller has the sum paid as compensation for the risk he has taken ; since it is not always possible to purchase double privileges, the price to be paid is high when they are available, for the risk to the seller is very great. It is exceedingly unlikely that prices in an active market will remain stationary for any length of time.

The use of privileges is confined almost exclusively to highly speculative transactions of a gambling nature. These contracts are merely bets upon anticipated changes in the price of the commodity, and in the majority of cases are never carried out, settlements being made by the payment of the difference in price to the winner of the gamble. Most of the produce exchanges in America forbid them in their rules, but dealing takes place after hours in the corridors and side rooms of the buildings. It is difficult to suppress them altogether, because in some cases they serve a useful purpose for the genuine trader. They are not countenanced as such officially on the English exchanges either, where some of the terms are used in somewhat different signification to the American. The American straddle is a "put and call option" in England, whereas the English straddle is a gamble on the difference in price of the same or different grades of the commodity at different periods—a bet on the difference in price of the same grade at different dates, or a bet on the difference in price of different grades at the same or different dates. As defined in the rules of the Liverpool Cotton Association: "A 'straddle' means a transaction in cotton for future delivery in which contracts are made either—

"(a) For the purchase of a certain number of bales of one growth for a certain period of delivery, and for the sale of an equal number of bales of the same growth for another period of delivery.

"(b) For the purchase of a certain number of bales of one growth for a certain period of delivery, and the sale of a contract or contracts of the nearest equivalent in weight of another growth for the same or another period of delivery."¹

¹ The Liverpool straddle is classified as an arbitrage transaction in America.

It will be observed that in this definition there is no mention of option or choice to be exercised by either of the parties. There are contracts to buy and to sell, in each case definite and without qualification, but hope of gain rests on nothing more than an expected alteration in the usual difference in price of futures of different periods or in the usual difference in price of two different growths. Such transactions have their justification in the protection they can give to spinners in certain situations that may arise in their business; and it is with this purpose in view that the association has given official sanction to them, while at the same time seeking to discourage their use as mere betting agreements.

The price to be paid for a privilege or option on the American exchanges is influenced by three considerations, which turn mainly upon the risk to the seller :

1. The length of time during which the option is to run. The longer the time the greater is the probability of fluctuation in the market price of the commodity, the greater the risk, therefore, to the seller and consequently the higher the price expected by him for the privilege granted.

2. The condition of the market. The risk of the seller is greater the more unstable the market at the moment. Therefore the more stagnant the market the smaller the price.

3. The greater the difference between the price or prices named in the agreement and the prices prevailing in the open market the less is the risk of the seller being called on to fulfil the contract and, therefore, the smaller the cost of the privilege.

In practice, on the whole, the custom is to keep the price of options fixed and to vary the other conditions, narrow the range of price and extend the time when the market is stagnant, extend the range of price and curtail the time when the market is "wild." Ten dollars per thousand bushels of wheat is the fair average price at present for a put or a call with range of price one-fourth or three-eighths of a cent away from the market price, available within fifteen days.

Theoretically the risk in buying a privilege is confined to the actual cost, and this fact has attracted unskilled speculators recently in great numbers to the American exchanges. They lose, it is said, less money in this way than in any other; for in every case the possible loss is known exactly beforehand. This new development is causing controlling bodies to place increased restrictions on the use of privileges and to attempt to suppress dealings in them even in places off the exchange floors and where the ordinary disciplinary rules do not hold. Yet there is a point of view from which they may be regarded as something more than mere betting transactions; for it is possible to conceive a privilege as an ordinary deal in futures proper, with a special stipulation that, in consideration of a cash payment, one of the parties has

the right to withdraw from the contract within a specified time.¹ In view of actual practice and recent developments it is difficult to find much justification for this standpoint; and there is little doubt that controlling bodies are acting in the best interests of *bonâ fide* traders in discountenancing them entirely.

Much more readily justified is another recent development in organised markets, which is rendered possible only by the existence of trading in futures, that is, the adjusting of price between different markets by means of arbitrage transactions or "spreading." In its simplest form an arbitrage transaction consists in buying in one market when the price is low, selling at the same time for forward delivery in another market where the price is high, and transporting the produce from one to the other to fulfil the contract. But instead of moving the produce, a dealer may buy futures in one market and sell futures in the other, and close out each contract in the market where it was made. Suppose, for example, the two markets are New York and Chicago. Wheat is normally 6 cents per bushel higher in the former than in the latter, this figure representing the expenses involved in transport from one to the other. If New York quotes, say, 72 cents, and Chicago 60, a dealer is justified in assuming that this difference of 12 is unusual, and will be reduced to about 6 within a reasonably short interval. He, therefore, buys futures in Chicago and sells them in New York. When the difference is narrowed down to 8, independently of the movements of the prices themselves (suppose New York falls to 67 and Chicago to 59), he can close out at a profit. By selling in Chicago he loses 1 cent per bushel, but he can buy in New York to cover his contract there at 67, thus making 5 cents per bushel; that is, a net gain of 4 cents per bushel on the completed series of transactions. This action on the part of arbitrage dealers tends to ensure that prices in markets which are in close communication shall differ only by the cost of transport from one to the other—shall remain "in line," as the phrase runs. Yet for considerable periods of time neighbouring markets may be "out of line," owing to heavy commitments in one making dealers reluctant to put through transactions of the kind required in the other. Cases are on record of arbitrage dealings even in the same market, when excitement has split dealers up into groups, which for the moment worked independently of one another and quoted different prices. Dealers less excitable than the rest then used their opportunity, and by their knowledge of different prices in places a few feet apart succeeded in making

¹ This is the view taken on the Continent, and the sum paid for the privilege of withdrawing from the contract by the person who would be the buyer if the contract were completed is called, in German, a *Lieferungsprämie* or *Vorprämie*. *Empfangsprämie* or *Rückprämie* is the corresponding term if it is the seller who purchases the privilege of withdrawal.

considerable profits in a very short time. Arbitrage transactions between centres in different countries are not infrequent in the case of securities. They are difficult to put through in the case of produce; for straightforward dealings are not possible, owing to the additional problems raised in connection with rates of exchange. Representatives in the producing countries of importing houses elsewhere, and agents abroad of firms in the producing countries in constant communication with one another and with their respective headquarters, succeed in setting and maintaining a general world price level for the main staples of commerce; but arbitrage in the produce markets finds its real field within the limits of a single country.

CHAPTER V

SETTLEMENTS AND CLEARING HOUSES

DIFFERENT contracts for the same number of units of wheat, cotton, or other produce of standard grade are, for all practical purposes, identical if they mature within the same delivery period. Thus it is obvious that a dealer who has bought and sold equal amounts of the same grade for the same period of delivery has not necessarily any concern in the actual goods. The difference between the prices of the sale and of the purchase complete his interest in both transactions. If, therefore, he can bring together the person from whom he purchased and the person to whom he sold the produce he can drop out, on payment or receipt of differences due on the two contracts, without handling anything but a warehouse receipt. It is to afford facilities for off-sets of this kind and for the settling of differences that clearing houses have been established and periodical settlements introduced. These are effected daily in some cases, weekly in others, while on some exchanges no settlement takes place before the close of the term of the contract. The general principle underlying a periodical settlement is one of partial payment pending final delivery and final settling up. The operation of clearing houses and short settlements is most clearly seen when settlement takes place daily. Some examples of the methods used in the Chicago Board of Trade afford good illustrations in this connection. Suppose on June 14 A sells to B 10,000 bushels of wheat for September delivery at 92 cents per bushel. The price fluctuates from day to day, and as it rises above 92, B, owning the wheat, would be the gainer and A the loser. By the rules of the Board, A must pay B the differences in value calculated on the basis of the closing market prices each day. If prices go down, B must pay A each day on the same basis. Suppose that on August 1 the price is 93, then the net total passed between them would amount to a payment of 1 cent per bushel by A to B. If B now sells to C, a similar process takes place, in addition, between B and C, and so on, with successive pairs of dealers, if further transactions take place on the basis of this particular lot of wheat. Suppose C holds the wheat until September 1 when the price is 95. A, being the original seller,

would then hand to B warehouse receipts for the quantity and grade agreed on. C, on receipt of these from B, would give payment to A on the *basis* of 95 cents per bushel. Having already received from B, by way of difference, 2 cents per bushel, he really is out of pocket only 93 cents, which is the price he agreed to pay for the wheat; while A, though now (on September 1) receiving 95 cents, had already (on August 1) paid B 1 cent and between August 1 and September 1 another 2 cents. Thus, as net result, he receives 92 cents per bushel, the price at which he originally agreed to deliver. B has as profit 1 cent per bushel on the complete transaction. B, in this case, is merely a speculator having judged correctly that prices were likely to rise. A and C did not necessarily know that they were dealing with a person who did not intend to handle the actual wheat.

If the parties consent, delivery can be offset by a corresponding contract on the immediate payment of differences. For example, two contracts which agree in all particulars except price may be offset and closed out by payment of the price differences. This can be done either by direct settlement between the parties or by what are called "rings" or through the clearing house. A ring is formed when a group of dealers can get together and settle up without the intervention of the clearing house. Suppose A sells 5,000 bushels to B at 92 cents per bushel and the market price at close is 93. This requires a payment of 50 dollars (1 cent per bushel) from A to B. The next day B may sell to C, and he, through D, E, F, etc., to M, and the market may close at 92½, differences being passed at the end of business between all the successive pairs as on the previous day. The process continues up to Z, who buys, let us say, when the market is at 98. Differences again are passed until Z, who has bought from Y, has paid Y 4 cents per bushel, and A 90 cents per bushel. In this way a complete ring is made, each intermediary between A and Z securing his profits and meeting his losses without unnecessary delay. It is not even necessary that Z and A should actually pass wheat between them, and if both were speculators that would not be done. A need only repurchase 50,000 bushels from Z, offsetting delivery in that way, and pay whatever difference such transaction demands.

Much time and trouble may be expended in the formation of a ring, and it is in this respect that the clearing house is of importance. On all exchanges it is an independent organisation, though not necessarily an independent corporation, with its own set of officials and regulations. Moreover, it is the record office of the market where all contracts in futures must be registered. In Chicago (and much the same system prevails on other exchanges) each member keeps a "settlement book," in which he has to enter the names of parties with whom he makes his daily

settlements, dates and terms of all contracts involved, including particulars of the original contracts which pass through his hands, the amounts due to or owing by him on each separate settlement, and the consolidated amount on all settlements. At the close of business each day all members attend at the clearing house and pass in their "reports" or accounts. If a member has a credit as result of his day's business, a cheque on the clearing house is handed to him; if the contrary, he hands over a cheque for the amount to the clearing house. There is thus no need for a member to search out at close of business all those with whom he has traded during the day. In the ring example given above, as the days went by, the intermediate traders would gradually disappear on the clearing-house record in respect of the contract in question, until on delivery day Z would be seen to be the actual purchaser of the wheat. The clearing-house clerk would then instruct him accordingly, and A would then ascertain to whom to make delivery.

In Minneapolis the Clearing Association in connection with the Chamber of Commerce is a separate corporation, membership of which is not compulsory for the ordinary members of the chamber; but non-members of the association may clear their transactions through those who are members. Thus, in practice, the advantages of the clearing arrangements become available for all. The method of working may be gathered from the following extract from the explanatory pamphlet issued by the secretary of the chamber in 1914]:—

"When two members of the Chamber of Commerce make a contract for future delivery, on the floor of the Exchange Room, and both these members are also members or stockholders of the Chamber of Commerce Clearing Association, they make reports on blank forms provided for that purpose to the Clearing Association; one party, whom we shall call A, reporting the sale to the second party, whom we shall call B, of 5,000 bushels of May wheat, at 85 cents per bushel; B makes a similar report, showing the purchase from A of 5,000 bushels of May wheat at 85 cents; both these reports being forwarded to the Clearing House promptly after the close of the market.

"The Clearing Association immediately makes a record of these reports, showing A to be 'short' 5,000 bushels of May wheat, and B to be 'long' 5,000 bushels of May wheat. The total amount of wheat which is short in the Clearing Association must always be precisely equal to the amount of wheat which is long in the Clearing Association.

"The Clearing Association requires all open trades upon its books to be protected or margined daily; that is, if at the close of the market the day following the date of the trade above mentioned

¹ McHugh, *The Formation, Development, and Economic Function of Grain Exchanges*, pp. 4 and 5.

May wheat closed one cent higher than on the previous day, A would be required to forward a cheque for one cent per bushel, or 50 dollars to protect his short sale to B, and the Clearing House would forward a cheque to B for this same amount. If the market fluctuates considerably, the Clearing House may require additional and special protection, as margins from its members. The Clearing House is maintained by a small charge made for clearing trades.

"We will suppose that in the above case B was a speculator. The market having advanced one cent per bushel, the purchase from A shows B a profit of one cent per bushel, or 50 dollars, and he may desire to sell the wheat which he has contracted to buy from A to C. If he does so, B reports the sale of 5,000 bushels of May wheat to C at 86 cents, and C reports the purchase of 5,000 bushels of May wheat from B at 86 cents. If this is the only open trade that B has in the Clearing Association, the Clearing House would cancel the purchase from A with the sale to C, and B would be neither long nor short in the Clearing Association. The Clearing Association would then show A still short of 5,000 bushels of May wheat, and C long 5,000 bushels of May wheat, thus substituting C for B, as the party to take delivery of the wheat sold by A.

"All contracts for the purchase and sale of wheat for future delivery, whether speculative or not, must contemplate the actual taking of the delivery; and if an individual makes a purchase of wheat for future delivery, as B did from A above mentioned, B is quite certain to receive delivery of 5,000 bushels of No. 1 Northern wheat, as evidenced by a warehouse receipt as above mentioned sometime during the month of May following, unless before delivery takes place he resells the contract to another purchaser, as in the case last above cited."

In consequence of offsetting or the cancelling of a purchase by a sale and by means of ringing-out and the work of the clearing house, very few futures remain to be fulfilled by delivery. This is the feature that has attracted most adverse criticism, because of the facility afforded to those who practically bet on price changes. An attempt to discourage this objectionable type of operator is made by demanding that, in addition to short settlement, a sum equal to 10 or 5 per cent. of the total sum involved on the contract shall be lodged with the clearing house. This is called "putting up a margin." It is claimed that the short-settlement system and the putting up of margins do prevent dealers from assuming risks beyond the power of their means to cover; and that though the system does offer facilities for gambling in mere price movements, as distinct from dealing in commodities, it has to be borne in mind that it helps to check wild speculation by weak dealers unable to meet the losses which they were yet very ready to incur before the system was introduced.

The Winnipeg Grain and Produce Exchange Clearing Association is, unlike the Winnipeg Grain Exchange itself, a company

incorporated under the Joint Stock Companies Act of Manitoba. It was formed in 1901 "for the purpose of more efficiently and economically exchanging the daily balances due to the fluctuations in the price of grain and for the added security to contracts." Not all members of the Exchange are members of the Clearing Association, but all members of the Clearing Association must be members of the Exchange. Non-members of the association, however, may have their futures contracts cleared by members. Contrary to the general practice of the North American continent the association assumes the position of seller to the buyer and buyer to the seller on all contracts of its members, and guarantees the fulfilment of all such agreements. It has ample liquid assets available as security, but its manager in every case can call for such additional security as in his judgment is necessary to ensure the due fulfilment of the contract. Each member must be a holder of five shares. The price of the latter was 50 dollars each at organisation. At present it is 1,500 dollars. There are 123 members with 615 shares subscribed. The authorised capital stock is 1,000 shares, providing, therefore, for a possible membership of 200.

In the case of the Liverpool Corn Trade Association the procedure is almost identical with that in Chicago. All contracts on being entered into are recorded in the books of the association; and this record, during the currency of the contract, affords protection to both parties against the risk of non-fulfilment. It is obligatory on the association to call upon the seller or the buyer, as the case may be, to deposit in its custody a fixed amount of margin, 1*d.* per cental, together with the difference accruing between the market value and that of the previous day. Whenever a contract is passed on, which happens when either the seller or the buyer closes his interest in it and becomes an intermediate, the latter receives his profit or unexhausted margin and disappears altogether from the agreement. The new contract created by this process is also adopted in the books of the association, and is treated precisely as the old. If the amount necessary to maintain a proper margin is not paid when demanded, all contracts standing in the name of the defaulter are immediately closed by the association.

Similar arrangements hold good in the markets of the Buenos Aires Grain Association, which is, to a large extent, modelled on that of the Liverpool Corn Trade Association, with the further simplification that after the contract has been duly recorded no member is responsible to any other member but only to the Association itself. This assumption of responsibility by the market authority or by a clearing house, which may be a corporation independent of the exchange, is unknown in the United States, but is common on the Continent, particularly in the coffee

trade. The oldest clearing house of this kind is the *Caisse de liquidation des affaires en marchandises*, of Havre, dating from 1882, which handles cotton, coffee, indigo, and lard contracts, not necessarily futures proper in every case, but also ordinary contracts for deferred delivery. Corresponding institutions exist in Marseilles, Paris, Antwerp, Hamburg,¹ Rotterdam, and other centres, while the London Produce Clearing House, Ltd., was established in 1888 to assume responsibility in contracts for forward delivery, including futures proper, in wheat, maize, coffee, sugar, tea, raw silk, and other commodities. The method of procedure is the same in every case, and business is always done through special brokers, from whom alone these institutions accept binding contracts. Their aim is a double one—to guarantee both parties to a contract the regular fulfilment of the same, and to provide the facilities of a clearing house when these are required. When a contract is made notice is given to the institution, which, on the requisite margin being lodged, steps in practically as an intermediate party and makes all payments and accepts all deliveries. Margins are required and are altered, as on the exchanges, in accordance with price movements during the time the contract is running; but interest is paid on the average amount lodged. In case of the default of either party, the institution secures the other party to the contract from loss, and recoups itself, as far as possible, from the security lodged by the defaulting party and from a reserve fund accumulated with this object. The fact that the institution is, for all purposes, a party to each contract greatly facilitates its work as a clearing house.

A rather remarkable recent extension of this type of clearing house to agreements not directly concerning produce is of interest as illustrating not only the methods of a *caisse de liquidation*, but also the growth of an organised market as soon as the requisite conditions therefor are fulfilled. The *Caisse internationale de liquidation et de garantie des opérations en marchandises* was established at Antwerp in 1920, to protect Belgian purchasers of foreign goods against losses caused by wide fluctuations in foreign exchange. Through this agency the local supply of, and the local demand for, foreign currency or credits are consolidated. Prices are quoted in Belgian currency. Sterling is handled in units of £1,000; French currency in units of 25,000 francs; Dutch florins in units of 3,000; German marks 50,000; and American dollars 3,000. The delivery period may be the first or the second fortnight of any given month. Sessions are held twice daily, 11.45 a.m. to 12 noon, and 3 to 3.30 p.m. Units of the several currencies are offered by sellers for the various fortnightly periods, but if no business is done, or if there is no offer

¹ The German title is *Waren-Liquidationscasse*.

of delivery for a stated term, a quotation committee publishes a figure arrived at by "interpolation"¹ or by comparison with other quotations taken from actual business concluded. At the close of each session all contracts for the delivery of exchange are registered with the *caisse*, which then assumes the obligations of buyer and seller towards one another and guarantees the execution of all the agreements made under its supervision. The method of delivery is exceedingly simple.² It is possible to maintain, with a considerable degree of truth, that such an organisation can accomplish little more than a small but active group of foreign exchange dealers working independently of one another. But on the other hand, the adoption by a money market of methods hitherto peculiar to the produce markets is a fact not without considerable significance.³

In the Liverpool Cotton Association weekly settlements are the rule in the case of all contracts made on "Settlement Terms." This condition is essential in all the agreements which are required to be drawn up on the authorised contract forms of the association. Only these forms are admitted to the "Settlement." The trading week runs from Monday to Saturday, and the following Thursday is "Settlement Day." On the Monday before settlement day prices known as settlement prices are struck at 11 a.m. by committees, whose decisions are not open to question. On the following Wednesday members render to each other, through the clearing house on authorised forms, statements based upon these prices referring to all contracts on settlement terms made between them and open, or running, at the close of business on the previous Saturday. Cash balances due on these statements are paid at the first clearing at the Liverpool Cotton Bank, Ltd., on the settlement day. In the settlement statements only the balance of bales is carried forward to the next settlement at the settlement prices; and other purchases from, and sales to, the same member of the same quantity of cotton for the same months of delivery are deemed closed contracts and are rung out. It is obvious that in this partial cancelling of his own contracts each settlement on behalf of each individual member cannot affect those contracts in which delivery is contemplated by either party, and it is in this connection that the clearing house plays one of its most important parts. A seller who has to deliver cotton is bound, before noon on the last day of the delivery period, to tender actual cotton, available for immediate delivery, of which full particulars as to bales, date of arrival in Liverpool,

¹ *I.e.* by using known figures in a regular series of quotations as basis for an estimate of the missing intermediate figures of the series.

² See *Bradstreet's*, vol. xlviii. p. 803.

³ There are traces of the growth in England also of a future market in foreign exchange. See *The Bankers' Magazine*, February, 1921.

and other matters have to be supplied on a standard recognised form. He is then known as the first seller. The declaration forms are in duplicate, one being retained by the clearing house ; the other, after being numbered, is handed by the clearing house to the buyer. This is known as a "docket," and can be "signed over" by the buyer to the member to whom he has sold the cotton, who, in turn, can sign it over to his buyer, and so on, any number of times. When the signing over has ceased the buyer whose name is at the end of the list is known as the last buyer. On depositing the docket with the clearing house the last buyer receives the duplicate with the clearing-house register stamp impressed upon it. If any question arises as to the quality of the cotton, the matter is referred to arbitration and/or appeal committees. If all is in order, the first seller enters on a clearing-house form the amount he demands before delivery of the cotton, plus or minus the balances due to or from the intermediate parties mentioned on the docket, and lodges with the clearing house the warehouse receipts in his possession. On payment to the Liverpool Cotton Bank, Ltd., at the first clearing, of the amount demanded, the last buyer is handed the warehouse receipts and thus obtains possession of the cotton. At the second clearing, later in the day, the first seller is paid his share, and adjustments are made concerning the payments due to or from the intermediates on the contract.

In futures contracts, whether for grain, coffee, cotton, or other similar commodity, the normal standard of an average crop is that ordinarily selected for delivery when the period is reached for the fulfilment of the agreement. But it must be clearly understood that a futures contract is a "basis" contract. It does not require the delivery of any specific grade. Instead, the seller has the privilege of making delivery from a range of grades. His choice is unfettered. On some exchanges he may even deliver a mixture of various grades, and when this is the case he tenders those which, for the time being, are slowest of sale in the spot market. In all cases allowances to buyer or seller are made for the difference. The reason for the adoption of a "basis" contract instead of a "specific" contract is a simple one, viz. the fact that the proportions of the numerous grades to the total crop vary widely from season to season, and, moreover, are liable to sudden changes owing to damage by storm or early frost or other unforeseen contingency. Hence sellers could not be found, who would commit themselves to forward sales of a specific grade, in numbers sufficient to maintain a practical futures market. If they did commit themselves, they would always have hanging over them the risk of a disastrous corner. A futures market is only possible when a basis contract is permitted.

Very often the basis grade, though in all cases the most useful

and most representative, is not the one required ; for it will appear later that futures are bought and sold for quite other purposes than the securing of a supply of the basis grade at a definite date. In such a case, rather than accept delivery, the buyer sells back again to the other party on the contract or sells the basis grade in the spot market and buys spot produce of the standard he requires. As a general rule the prices of the several grades move in unison, and their differences tend to alter proportionally to those prices ; but this is not the case invariably. Hence the principle on which the allowances are calculated at settlement time for the difference between grade tendered and the basis grade is one of outstanding importance to the trade.

The futures contract form, in use in Liverpool from 1914 to 1919, for American cotton, provided that any "grade down to and including Fully Good Ordinary, or if tinged or stained, any grade which (irrespective of allowance to seller for staple) is at least equal in value to Fully Good Ordinary, should be tendered for delivery at the agreed price per lb. for Middling, with additions or deductions for such other qualities as were within the contract according to their value as compared with the spot value of Middling on the day the cotton was tendered." Here Middling was the grade which formed the basis, and when other grades within the range permitted were tendered, the allowances were calculated in accordance with the spot prices of the day of tender.

Since February, 1919, somewhat more elaborate conditions have been embodied in the form, and the basis has been changed to Fully Middling, with corresponding alteration of the range of tenderable qualities. Tender is now only permitted of any grade not lower than Low Middling (equal in colour to the standard and fair staple), with additions or deductions for such other qualities as are within the contract, according to their value as compared with the spot value of Fully Middling (equal in colour to the standard and fair staple) on the day the cotton is tendered. Not more than one tender or more than three lots for each unit (48,000 lb.) is permissible, and each 48,000 lb. is treated as a separate contract. The additions or deductions for quality are settled by arbitration, but any bales below or of less value than Low Middling may be returned by the buyer at the spot value with or without a penalty. If cotton of better staple than $1\frac{3}{16}$ in. is tendered, the seller must make an allowance to the buyer of 20 per cent. of the excess value of such staple cotton over $1\frac{3}{16}$ in. If the seller fails to tender against the contract, it is invoiced back to him at the spot price of Fully Middling on the last business day of the delivery period plus an allowance of $\frac{1}{2}d.$ per lb. The invoicing back price, including the allowance, must never exceed the official value of Fully Middling-by more than 10 per cent. The method prescribed for ascertaining the official value

of Fully Middling for this purpose is an innovation, and bears deep traces of the influence of recent American legislation. Two groups of spot markets in America are taken, one consisting of three Atlantic markets—Augusta, Norfolk, and Savannah,—the other of three Texas markets—Dallas, Galveston, and Houston. An average price is struck for each group in a manner prescribed, and the lower of the two is taken as basis for the price sought.

It will be seen, therefore, that, in this revised contract also, allowances are calculated with reference to spot prices, either in the Liverpool market itself or in certain selected American markets.

This is the method of "commercial differences" as opposed to the method of "fixed differences," which used to be the rule on the New York Cotton Exchange, and is the rule in the Chicago Board of Trade and on the exchanges dealing with commodities other than cotton. Under the latter system the premiums and discounts allowed for better and poorer grades delivered are fixed arbitrarily by a committee at stated intervals instead of being fixed by the actual selling prices of the different grades in a spot market at the time of delivery. The substitution of one method for the other may seem a matter of little significance, but as the change from fixed to commercial differences was accepted reluctantly by the New York Cotton Exchange, and only after legislation by the Federal Government, it may be worth while to examine the question more closely.

The system of commercial differences was in substance the method employed by the New York Cotton Exchange up to 1888, when it was abandoned for two reasons. Firstly, owing to the development of cotton factories in the Southern States, and to direct buying there by the mills of the Northern States, spot sales fell away in number and no longer afforded a sufficient basis for determining the relative values of the various grades which could be tendered in settlement of future delivery contracts. Secondly, the smaller amounts of actual cotton made it increasingly easy to manipulate the prices of the various grades, and therefore the price differences between the grades. Accordingly, a committee of the exchange, known as the revision committee, was appointed, which met at stated intervals (at first nine times a year, then twice, and afterwards four times a year), and established arbitrarily the differences in prices between the basis grade of Middling and the other grades. The differences thus established held good until the next meeting of the committee, but they seldom or never coincided with the actual price differences at the time of delivery. The loss resulting from this always fell upon the buyer rather than upon the seller; for the latter, having choice of grade, always selected that one which was most favourable to himself. The buyer, knowing beforehand that the seller would offer for delivery

those grades most over-valued in the fixed differences, sought to anticipate and discount this loss by offering less for the contract than he would have done if the system of commercial differences had been in force. Thus the value of the futures market for "hedging" was largely destroyed, because risks were arbitrarily increased for those cotton merchants who used it in a legitimate way to minimise or escape any risk at all. Moreover, futures prices were artificially depressed in New York and kept out of line with prices in other markets, with resulting confusion to the whole American cotton trade.

It was not the cotton merchant alone who suffered under this system. Much of the cotton in America is bought in the South on the basis of the prices offered in the New York and New Orleans exchanges for future delivery; and it is the custom for the merchants' agents to offer the farmer so many "points" ¹ "on" or "off" the future delivery prices of the day of sale. Owing to the artificial depression of prices, previously referred to, the price paid to producers for their cotton was also frequently below its true level,² a fact which lent support to the contentions of the leaders of the "anti-option" movement, which aimed at the suppression of dealings in futures altogether.

The confusion spread even to the market for manufactured cotton goods.³ The great mass of buyers of cotton goods, particularly buyers for export, base their ideas of the value of goods upon contract quotations on the New York Cotton Exchange, with the result that they used to be misled as to the cost of the raw material for manufacture. There was therefore a tendency for prices of the manufactured article to fall below what brought in a fair profit to the makers.

With the object of finding a remedy for these evils, the United States Bureau of Corporations,⁴ after an extended investigation, made recommendations which the New York Cotton Exchange declined to adopt. Accordingly, the Federal Government had to intervene, and, by means of the Cotton Futures Act, effective

¹ Cotton is sold in America for so many cents per lb., and a point is a hundredth of a cent.

² See *Report of the Commissioner of Corporations on Cotton Exchanges*, Parts 4 and 5, Washington, U.S.A., 1909, for charts and full discussion of the whole question of fixed differences.

³ See Conant, "The United States Cotton Futures Act," *The American Economic Review*, Fourth Series, vol. v. pp. 1-11.

⁴ This bureau is a section or division of the Department of Commerce of the Federal Government, and to it is entrusted the general oversight of all undertakings incorporated under United States laws. Before 1913 there was a single Department of Commerce and Labour with its subordinate bureaus. During that year a new department, presided over by an additional minister, was established. There are now, therefore, both a Department of Commerce and a Department of Labour, each with its own minister and its own bureaus.

February, 1915, which placed a prohibitive tax of 2 cents per lb. on all cotton futures that did not comply with certain requirements, including the use of commercial differences instead of fixed differences, it compelled the Exchange authority to alter its system. To provide against the contingency of there being insufficient spot cotton dealings in a single market to make possible an accurate determination of commercial differences (and this was always a real difficulty in New York), the Act lays down that the differences shall be determined by the average actual commercial differences on the sixth day prior to the date of delivery in the spot markets of not less than five centres designated for the purpose, from time to time, by the Secretary of Agriculture. Eleven centres have been so designated, where genuine spot markets exist. Under the Act the official cotton standards of the Department of Agriculture are those to be employed, but pending their general adoption by the southern spot markets, rules are drawn up for the translation of the differences between the spot prices of the southern grades into differences applicable to the official grades. It is also prescribed that every bale of cotton delivered on contract must be identified with its grade, a practice not usual in New York before 1915. Recent reports of the Department of Agriculture indicate that the Act has been a success. The prices of New York futures are now in line with the spot prices of the South, and also conform to the Liverpool market.

While it is beyond doubt that the system of commercial differences works better than the system of fixed differences, and is fairer to manufacturer, merchant, and producer, it by no means follows that it is perfect and that under it the normal relationship of future and spot quotation is always maintained. If the volume of dealings in futures is small the market becomes unduly sensitive to errors in differences and to manipulation by cliques. This is not uncommon in New Orleans, and is not quite unknown even in Liverpool. But the main cause of disturbance is the provision, natural under this system, for the delivery of "extra staple" cotton or cotton of extra long fibre. This cotton fluctuates in value very sharply. A difference of even $\frac{1}{8}$ of an inch in length may, in some seasons, cause a difference of more than a cent, or one halfpenny per lb., in price. Hence there ensues much uncertainty and inconsistency in the awards of the several arbitration and appeal committees, which seriously disturb the value of the Liverpool futures contract in its relation to the basis grade.

To discourage the tender of such troublesome cotton on futures contracts, both New York and New Orleans used to limit the allowances to be added to the contract price for cotton of extra staple to a small fraction of a cent per lb. More recently no allowance whatever can be made unless by permission of the Secretary of Agriculture. Liverpool does not go as far as that,

but cuts 20 per cent. off the allowance when the staple exceeds $1\frac{3}{16}$ of an inch.¹ The claim is made that there are now no longer, on any of these markets, disturbances arising from methods of calculating allowances for price differentials, which are not and cannot be effectively dealt with immediately on their appearance.

Owing to the fact that the production of other staple commodities dealt in on the several produce exchanges is less localised than cotton growing, supplies of the basis grade in their case are available from a considerably wider area. Moreover, there tends to be greater normality in their output, with the consequence that the basis grade is larger in proportion to the total crop. Again, few commodities require to be so carefully selected as cotton for the specific purposes for which they are needed. For these and other reasons, therefore, the question of fixed differences or commercial differences is not important. The greater simplicity and convenience of the former have caused their general adoption for all commodities other than cotton.² It is only in the case of coffee, the main crop of which, like that of cotton, comes from quite a small area, that there has been any agitation for a change.

¹ See *supra*, p. 59.

² See the 63rd Annual Report of the Chicago Board of Trade, 1921.

In the case of wheat and maize the system of fixed differences results in the imposition of a penalty on the seller. In this way the buyer is afforded the protection to which he is fairly entitled.

CHAPTER VI

CROP REPORTS AND MARKET PRICE QUOTATIONS

NOT the least important of the services rendered to society by market organisations is that of the daily determination of prices ; for it is on published market quotations that producers and consumers alike rely for guidance in their actions in the future. Similarly, in their turn, operators in the market have to search for a foundation on which to base reliable estimates of demand and supply. It is to provide this sure foundation that reporting agencies have been instituted, whose duty it is to collect information concerning the condition of growing crops and to give forecasts, several months before harvests, of possible yield and probable future supplies. In relation to the entire world product of any commodity, such as wheat or cotton, the markets need all the facts available concerning the supply afforded by the previous crop, the raw and finished products in store and in transit, the acreage and condition of growing crops, and the present and prospective demand, as far as they can be ascertained from returns, or from forecasts based on returns as adequate as it is possible to obtain.

Two classes of agencies supply this information, governmental departments and non-official agencies, the latter of which may be sub-divided into those maintained directly by market organisations for their own use, and those which are independent of all other organisations and are prepared to sell the results of their investigations to all who are prepared to purchase them.

Government crop reports, even such portions of them as relate to acreages and yields, are not the result of actual farm-to-farm inspection, but are the results of a union of a large number of estimates, or personal judgments of conditions systematically collected and averaged. The reports are valuable in proportion as they are timely, that is, in proportion as they furnish reasonably accurate information concerning crops before they have been completely marketed or consumed. An exhaustive census is costly and requires so much time that the results are not known until they are no longer useful ; but tests have shown that for ordinary purposes crop reports collected in the manner indicated are reliable and accurate. Periodic checking by means of a formal census permits of comparisons being made which demonstrate the

degree of accuracy attained and inspire in those who use the results that confidence which the care taken in their compilation justifies.

It was in 1863 that the United States Department of Agriculture began to collect agricultural statistics for information and reports; and, as its methods and principles have been generally imitated by the corresponding government agencies of many other important agricultural countries, it may be worth while reviewing this work in some detail.

The foundation on which the Bureau of Statistics and Crop Estimates of the Department of Agriculture builds is the census taken every five years by the United States Census Office, when the acreage, the total amount of crops grown, and the numbers of live stock are ascertained by an actual census count. Every farm in the entire country is visited on these occasions, and the figures obtained are those referring to the previous year.

During each of the succeeding five years the bureau uses these figures as a basis upon which to estimate changes in acreage and in numbers of live stock. Three main inquiries are made concerning each important crop: first, the area sown, made immediately after seed-time; second, the condition of the crop, made monthly during the growing period; and third, the yield per acre, made at harvest time. The total production is then obtained by multiplying the estimated yield per acre by the estimated acreage. Other minor inquiries are made at the proper times in the year, such as quality, prices, stocks on hand, and amount forwarded from any collecting centres to primary markets.

In reporting the acreage of a crop, the agents of the bureau simply apply to the acreage of the preceding year an estimated percentage of increase or decrease. Thus an error made in the estimated change of acreage from any one year to another is continued from year to year until the next quinquennial revision, when the necessary correction can be made on the basis of the new figures supplied. A comparison of actual census results and estimated figures in a recent year show errors of 2.6 per cent. and 4 per cent. in excess, and 5.4 per cent. deficiency in the case of maize, wheat, and oats respectively.

The condition of a crop is reported in the form of a percentage, the base, 100, being called a "normal," that is, "normal growth and vitality giving promise of a full crop being represented by 100." Such a normal full crop is what a farmer expects with his usual mode of farming, with normal weather conditions, and without unusual loss from disease, insects, or other injurious influences. It is therefore more than an "average" yield, but less than the maximum possible yield, and it varies from district to district in accordance with the degree of fertility and the perfection of agricultural science. The condition at a given date is

expressed by the percentage of the normal yield which may result, if no change in the condition of the crop takes place between then and harvest time; and the purpose of the report is to estimate probable future supplies under prevailing growing crop conditions. It is assumed that average conditions at any time indicate average yields per acre, and if at any time the condition is 5 per cent. above the average condition for such time, it is assumed that the yield is likely to be 5 per cent. above the average yield.¹

An example will show how condition figures are to be interpreted. Suppose that on July 1 the condition of maize is 82 per cent. of a normal condition, and that in the last few years the condition has averaged 86 per cent. of a normal condition. Then the condition on July 1 is 4.6 per cent. below the average (for 82 is 95.4 per cent. of 86), and the harvest expected will be 4.6 per cent. below the average. If in the last few years the average yield was 28 bushels per acre, then the expected yield is 95.4 per cent. of 28 bushels, *i.e.* 26.7 bushels per acre. This yield, therefore, is a reasonable expectation, though it may be exceeded if less than average adversity befall the crop before harvest, and may not be attained if weather and other adverse conditions prove to be more unfavourable than usual.

The yield per acre is obtained from the returns sent in by the agents of the bureau after harvest. No special means are employed to obtain estimates. The agents are left free to ascertain figures by inquiry or by any other means they may select.

Four classes of reports are received on each crop, one class from special travelling agents in the direct full-time employment of the bureau, each of whom is responsible for from one to four States; a second from State agents, one in each State, who is a part-time official, reporting for a State as a whole and maintaining a body of voluntary correspondents from whom to collect the information needed; a third from township correspondents, who voluntarily answer questions concerning crops on printed schedules sent to them monthly by the bureau. There are close on 35,000 of these correspondents in the country as a whole, and each has only to deal with the crops in his own vicinity. The fourth class consists of county correspondents, who, like the township correspondents, are voluntary reporters, but whose reports cover entire counties. A weighted average² of these reports is taken in order to arrive at a figure for a complete State, the weight in the case of each crop being proportional to the acreage planted. All these four classes of reports are sent direct to Washington,

¹ See *Monthly Crop Reporter*, July, 1921, for an official explanation of the interpretation to be placed upon the bureau's figures.

² An average (arithmetic mean) being the quotient of the sum of a series of figures by their number, a weighted mean is obtained by multiplying each several figure by some numerical coefficient or "weight" and dividing the sum of such products by the sum of the weights.

where they are summarised ; and the final report is published in the *Monthly Crop Reporter*, on or about the eighth day of each month, or earlier if the returns happen to arrive with unusual punctuality.

In the case of the four crops known as "speculative," that is, wheat, maize, cotton, and oats, those crops the markets for which are very highly organised, elaborate precautions are observed in the preparation and publication of the reports, so that no person may obtain an undue advantage from the possession of early information of the result.¹ The crop reporting board, consisting of the chief statistician and four assistants, sits behind closed doors for the co-ordination of the four sets of returns sent in, and for the examination of any other available information which may have reached the bureau and be relevant to the preparation of the monthly return :

" When the hour set for announcing the figures arrives, the Board has its report worked out with National as well as State averages and totals, and manifold copies are made of a table of these figures, together with a few brief paragraphs stating the leading facts as to the acreage and condition of each crop. A few minutes before the clock strikes the hour the Board and the Secretary of Agriculture sign the report and take it to the corridor near the telegraph room. Several copies of the report sheets are laid, face down, on a table. Eight or ten telegraph operators and news reporters are ready for the stroke of the clock, and with the word they seize the papers and rush to the telegraph and telephone instruments. In a single minute the wires have flashed the leading figures to New York, Chicago, New Orleans, and other great markets."²

¹ See Murray, "The Crop Reporting System," *Annals of the American Academy of Political and Social Science*, vol. xxxviii. ; and Hays, "Functions and Needs of Our Great Markets," *Annals of the American Academy of Political and Social Science*, vol. xlv. pp. 245-62.

² Hays, *loc. cit.*, As an example of the effect on the markets of a crop report not anticipated, the subjoined paragraphs from English newspapers of August 2 and 3, referring to the report of August 1, 1921, on the cotton crop are of interest :—

" New York,
" Monday.

" The report issued to-day by the Washington Department of Agriculture gives the average condition of the crop as on July 25 at 64·7, compared with 69·2 a month ago, 74·1 last year, 67·1 in 1919, and 75·4 the ten-year average.

" The Bureau report came as a big surprise to the market, a deterioration of 4·5 being much larger than expected. Considerable excitement was caused, and as a result of active general buying prices at one time showed a rise of nearly 1 cent per lb. The upward movement continued until quite near the close, when realising brought about a reaction of about 20 points, making final prices 71 to 80 points up. Sales 300,000 bales."

" Tuesday.

" The Washington Department of Agriculture, in a supplement to the monthly cotton crop report, states : Boll weevil damage is heavy with the

It is impossible, without incurring very great expense, to estimate the annual production of every product grown. The bureau, therefore, confines itself to twelve of the most important crops—wheat, corn, maize, cotton, hay, rye, potatoes, barley, flax, rice, buckwheat, and tobacco. These comprise about 95 per cent. of the acreage and 80 per cent. of the value of all crops; but some of the minor crops, like beans, onions, and cabbage, are reported on as to condition of growth and as to percentage of a full crop produced.

It was not until the year 1908 that the Canadian Government began to issue crop reports for Canada as a whole, although estimates of crop conditions and yields had been issued for several years previously by some of the provincial governments. The results are based upon data collected by the Census and Statistics Office from practical agricultural correspondents in all parts of the Dominion, who voluntarily place their services at the disposal of the Government.

The method adopted of presenting the reports is an adaptation of the American one, viz. a numerical percentage above or below a standard condition represented as 100. The term "standard condition" is taken as denoting a full crop of good quality, and a healthy and thrifty state in the case of live stock. Correspondents are asked to report under four grades of condition, viz. :

Good . . .	represented by 75 to 100 or over.
Average . . .	„ from 50 to 74.
Fair . . .	„ from 25 to 49, and
Poor . . .	„ below 25.

In England and Wales the Ministry of Agriculture and Fisheries employs a staff of crop-reporters to collect the information it publishes each autumn¹; while in Ireland the Royal Irish Constabulary has (or had), among its other duties, the task of furnishing very full returns and detailed information concerning crops and crop conditions to the Department of Agriculture and Technical Instruction of that country.

Of the non-governmental agencies supplying information, trade newspapers are probably the most widely known. They

threat of continued and increased damage. The outlook is very serious in some sections, where the pest promises to take all new growth.

"The American Cotton Association estimates the cotton crop condition on August 1 at 62.0 compared with 64.7 estimated by the Government on July 25."

¹ Estimates are usually published in August, giving acreage under each crop and under grass on the previous June 4. After harvest, estimates of the hop crop, of the corn crops, and of the potato and root crops are published at the end of October and beginning of November. Corrected returns appear early in the following year in the annual *Agricultural Returns*.

collect facts by means of a large body of correspondents located in the agricultural areas ; and the methods adopted by the better of them are modelled very much on those of the government departments of the countries where they are published. Individuals and firms publish private reports, both in the cotton trade and the grain trade ; and the several exchanges spend much money in compiling statistics and publishing information for the use of their own members.¹

Probably the organisation that is most efficient in collecting information in the grain trade is " Broomhall's Agency." It is a kind of official representative in this respect of practically every grain exchange in the world, with offices, agents, or correspondents scattered through all the grain-producing countries of importance, and with a head office at Liverpool, which serves as a clearing house for every kind of news that bears even remotely on any of the several branches of the corn trade. Broomhall's *Corn Trade News* is published twice daily in the chief market centres ; and, in addition to crop reports and market quotations, it contains full statistics of imports and exports, as well as news of shipments and of arrivals of grain cargoes at all the chief shipping centres in both hemispheres.

With the object of developing a system of world-area statistics concerning crops and crop movements, the recently established International Institute of Agriculture at Rome has organised as one of its departments a bureau of agricultural statistics, which collects world-area data and supplies these facts to all the fifty-nine adhering countries. This information, which comprises statistics of acreages, conditions, and total production, is collected from generally accessible sources in each country, and is published and made available as soon as it is tabulated. The Institute utilises the agencies, official and unofficial, already organised, and

¹ The following statement, taken from a weekly trade journal, may be of interest in this connection. The reference is to the Canadian crops for the harvest of 1921 :—

" The North-West Grain Dealers' Association has just published the following estimate of the volume of the grain crop of the three prairie provinces :—

Wheat .	17,498,000	acres at 14.8	bushels per acre	258,632,000	bushels.
Oats .	9,522,000	"	35.0	"	333,565,000
Barley .	1,846,000	"	24.2	"	44,760,000
Rye .	568,000	"	15.9	"	9,058,000
Flax .	751,000	"	7.4	"	5,576,000

" The official Government estimate claims slightly higher figures for the wheat crop—namely, 264,912,000 bushels ; but the *Manitoba Free Press*, which specialises in crop reports, predicts only 248,423,000 bushels."

The reports of Mr. H. G. Hester, secretary of the New Orleans Cotton Exchange, are of considerable importance in connection with the trade in American cotton. They deal with every aspect of cotton, involving numerical estimates or numerical results of any kind.

is successfully encouraging the setting up of statistical crop-reporting departments in all countries. Its news tends to be rather old when received by the markets, but it is probable that more frequent reports will be issued when experience has been gained in the work of collecting and tabulating.¹ It has already proved of considerable service to the grain trade by the prevention of exaggerated reports of crop damage and the like, which were skilfully put into circulation and used to get a certain amount of credence for a period sufficiently long to enable their originators to compass their undesirable ends.

One important point arises in connection with the Institute's work—that is, the degree of secrecy to be exercised in the assembling of the facts. The difficulties in the way of maintaining strict secrecy until the data are available simultaneously for all parties who desire them are enormous; but if this could be attained, the gain to the organised produce markets would be great. With really comprehensive and efficient crop reports they would be able to maintain fairly steady prices, fluctuating only as the facts of production and consumption warranted; and their success would be the greater in proportion as the official reports were simultaneously available to all.

It is not to be expected that the work of these agencies, official and unofficial, should escape criticism. Indeed, there are still many brokers who maintain that, notwithstanding the care used in compiling and issuing the reports so as not to permit them to become available prematurely to unscrupulous manipulators, those concerned in the distribution of the crops would be better off if no crop reports were issued at all. These persons, however, are in a diminishing minority. A more justifiable criticism is that, from their nature, the reports can be nothing more than guesses by an individual or a board,² and that both weather and acreage reports are used by manipulators to influence prices, thereby causing more and greater price fluctuations, and producing the very thing they were intended to prevent. With a view to meeting these objections in the case of the cotton crop, proposals have been made³ for the direct observation of what the crop is actually doing at a given moment. It is suggested that samples should

¹ At present the *International Crop Report and Agricultural Statistics* is issued monthly. A useful account of the Institute's activities appears in *Report of World Cotton Conference*, June, 1921, pp. 186-91.

² The extraordinary mistake in the estimated acreage under cotton made by the United States Department of Agriculture in the crop estimates during 1921 lends support to this contention of the critics. Reasons connected with politics and inter-departmental finance appear to be the explanation of the very misleading reports that were issued.

³ Balls, "The Possibilities with Cotton Crops for Exact Reporting and Forecasting," *Report of World Cotton Conference, Liverpool and Manchester*, June, 1921.

be taken day by day throughout the season. The number of flowers should be counted and the number of ripe bolls. These samples should be taken from fields throughout the area under cultivation—one field here and one there—and sent for comparison and tabulation to a central place. In that way the condition of the crop at any given moment could be determined with extraordinary accuracy. The present system, it is said, is like trying to use a dictionary from which some one has torn three-quarters of the leaves.

There are considerable difficulties in the way of the adoption of such a suggestion as the one just outlined. It is true that it would abolish reliance on mere personal opinion, which is never a very safe guide; but it could be worked with profit only in a climate whose equability allowed the crop to make regular progress. It would not be so satisfactory where changes of weather or the descent of pests made for alternations of advance and retrogression.

In any single organised market the prices paid for the same quality of a given commodity are the same at any one time. In other words, there is at any moment a definite market price. It is of considerable importance, not only to the members of the exchange but to dealers in other markets, and especially to producers, to know what this price is from day to day. Therefore special methods have been devised for ascertaining it and for publishing it broadcast, so that all concerned may have an opportunity of seeing it.

Price quotations may be used for several purposes: firstly, as a simple indication of market values; secondly, as a basis for fixing prices in contracts—"settling price," *e.g.*; and thirdly, as an indication to retailers or collecting agents of the price at which they may sell or purchase. The function of quotations as a measure of values is generally understood, and calls for no comment here. Their use, however, as indicators of selling and buying prices to retailers and collecting agents is scarcely less important. In the cotton trade the price paid to growers is always determined¹ by the price of futures on the cotton exchanges, and the American country elevators in the wheat trade similarly settle the price they pay to the farmers for that particular crop. Moreover, in many countries individual farmers periodically supply more perishable produce at so much under or over the wholesale published price of some central market agreed on. In this way constant discussion and haggling about prices is avoided, time is saved, and marketing facilitated.

It is on the exchanges themselves that price quotations perform their greatest service and that the most serious questions arise respecting their determination. Constant disputes about

¹ See pp. 79 and 87.

"settling prices" in the case of futures contracts would arise if definite rules were not laid down. Moreover, the custom of buying "on call" would not be possible, nor the system of "invoicing back" on contracts, if there were not an independent price quotation to prevent one or other of the parties feeling aggrieved.

Where a commodity is carefully graded and the grades are narrow, it is easy for a market to evolve a single price at any moment for each and every grade. Such is the case on all the cotton exchanges. But in most other commodities it is not possible to grade in such a manner as to avoid a range of prices for each of the standard sub-divisions. Even in the case of wheat, which is more exactly graded than almost any other commodity, the spot quotations in some markets often show a spread of 2 to 3 per cent., No. 1 Northern, for example, being quoted 101 and 103 in an American market recently. This means that the best wheat falling within the grade was worth 2 cents per bushel more than wheat which was just barely admitted into that class. In such a case it is conventionally agreed that the upper figure is the quotation to be followed.

In the organised markets, owing to the continuous activity during business hours, it is a comparatively simple matter to arrive at price quotations; for every one in the exchange knows the current price at any moment. But when the price varies from hour to hour, the question arises of obtaining and recording the quotation at specific times and of deciding at which hour the price is to be taken as the official quotation for the day. On some exchanges the closing quotation of the day is taken as of most importance; but it may well happen that the greater part of the day's business may be transacted during the early hours, and that it may be difficult in some cases to find enough transactions during the closing hour on which to base a quotation. Therefore, each exchange adopts its own methods in this respect, and either appoints a quotation committee, to which wide powers are delegated, or authorises its secretary to base quotations on reports from members of the exchange, or sometimes takes a vote of all members present at a definite moment.

In certain of the less highly organised markets, butter and cheese markets particularly, in the United States, the traders assemble each day at some fixed hour and hold what is termed a "call." This is a device for making bids and offers with the object of sounding market conditions rather than actually transacting business. By its means price quotations are obtained, and these serve as the official records for the day. A chairman mounts the platform, round which members gather, and calls for offers and bids. These are announced or are posted side by side on a blackboard. If bid and offer coincide in any instance a

sale is effected, but if there is no coincidence there is at any rate a basis on which to build up a quotation. The whole operation lasts only a few minutes, and while it originally had other objects in addition, its sole purpose now is to establish the official price quotations for the day.

The rules of the Liverpool Cotton Association make ample provision for ascertaining what has been and what shall be the price in every case which is not a straightforward initial business transaction. Official (noon) closing price lists are issued daily. What are called "mid-day striking prices" are published of the futures of each month traded in for guidance in "invoicing back." Mid-day spot quotations appear in the daily official circular, and on each Monday, for the purpose of "settlement" on the following Thursday, prices are struck at 11 a.m. by the Arrival Quotation Committees. There is, therefore, never any doubt as to the price quotation to be used for any particular purpose, though there may be several quoted in the same day for the same grade and delivery period. For example, in the newspaper report in Appendix II., for July futures five prices are given, viz. the highest and the lowest during the day, the value at 12.15 p.m., the striking price at 11 a.m. (for "settlement"), and the price at close of business, every one of which has its own special importance and significance.

On the New York Cotton Exchange there is a quotation committee, consisting of seven members, which meets twice a day to fix the official quotation of Middling, and similar committees exist for the New York Coffee and New Orleans Cotton Exchanges. In the Minneapolis Chamber of Commerce there is a committee whose duty it is to ascertain closing prices based on actual business done; and, in addition, throughout the day an operator sits on a raised platform beside the pit to record the prices and actual sales of futures as they take place, and to telegraph the proceedings immediately to other markets.

On the Winnipeg Grain Exchange a record is kept of daily cash closing prices (*i.e.* of the closing prices for "cash grain"); and a daily record of closing prices both for "cash grain" and futures is forwarded to the Department of Trade and Commerce, Ottawa.

The ascertaining of prices, in the less highly organised markets is not a simple matter. The call board method already described is not entirely satisfactory, for no actual business may be put through at the prices mentioned during the call. Price quotation committees may be dominated by the interests of one side of the market, and underquoting or overquoting practised to the detriment of producers and consumers. To deal with these difficulties, and to give a guarantee of impartiality to the general public, the duties of market reporting have often been taken over by independent firms specifically formed for that purpose.

Broomhall's agency, already referred to, is an example, but it is probably in New York, in the less important produce markets, that the greatest development of this method has taken place. The market reporters employed by such firms get their information by going about and talking with the various dealers. Their success depends partly, of course, on the frankness and honesty of the dealers, but mainly upon their own ability, experience, and disinterestedness, and their knowledge of price statistics and crop movements. The results are published daily in such journals as *The Corn Trade News* and *The Producers' Price Current*.

The method of determining prices in the butter trade between England and Denmark offers a good example of the use of price quotations as a trading indicator, and at the same time illustrates the serious difficulties that occur in attempts to reach a basis that is impartial and fair to all the parties concerned. For several years the price at which English wholesale dealers bought was based upon the Copenhagen butter quotation, which, in turn, was determined by a committee using the reports of actual sales as its guide. The market was underquoted; for the net price received by the creameries was really higher than the official quotation, and much dissatisfaction ensued. Re-organisation of the committee was attempted by the granting of representatives to the creameries as well as to the wholesale trade; but this too proved unsatisfactory, and the producers at length broke away and established their own quotation system, based on the weekly reports of sales by creameries. The wholesale dealers still continue theirs, which is always a little lower than that of the creameries. It has not yet been superseded to any great extent as an indicator by the newer price quotation.

From time to time suggestions have been made with the object of improving and facilitating the collecting of prices in the produce markets generally. While these suggestions refer primarily to the less highly organised markets, and only indirectly affect the exchanges, it is, nevertheless, worth while to consider a few of them which attempt to embody methods already found useful in the grain and cotton markets.

One suggestion is that market authorities should be given power by law to issue quotations each day based on sworn statements of prices received by traders, and that these prices should be binding in all other transactions put through on that day. Such a proposal does not seem possible of realisation. Prices are used merely as a guide by others or as an indication of the state of the market. To interpose obstacles to their free movement is to destroy the market altogether. Again, it has been suggested that a committee of appraisers should be appointed to include traders, market reporters, and government officials, the latter as representatives of the producers. This is a much more feasible

scheme, but it would require exceptional knowledge on the part of the market reporters and the government officials, and an experience of market conditions not invariably possessed by them.

The introduction of government officials naturally raises the question as to how far a government, either local or central, can be of assistance in developing methods of collecting market statistics and prices, and in spreading the information it obtains in this way. There is no doubt that it can help by promoting the study of present methods to determine their weaknesses, by drawing attention to abuses, and by instituting legal action when individuals are reluctant to do so. There may even be special cases where a government may feel it necessary to help in the ascertaining and drawing up of quotations. Such a case is that occurring under the United States Cotton Futures Act, according to which spot quotations have to be ascertained in a prescribed manner in connection with the system of commercial differences. But on the whole, interference of this latter kind is unwise in the present stage of market development ; for the best results hitherto attained have been those of the independent market reporters acting on behalf of impartial market reporting firms, and the official returns drawn up by the quotation committees of the more highly organised markets or exchanges.

CHAPTER VII

LEGITIMATE USES OF FUTURES

No aspect of marketing has been more widely discussed than the system of dealing in produce for future delivery as it has been developed in America and England in recent years. At one time it is attacked on the ground that the selling of fictitious produce is the cause of low prices to the producer. At another time it is asserted that gambling middlemen raise prices unduly for the consumer. Again, it is said that through it alone can the crops be moved with ease and safety, and that no cheaper means for distribution can be devised, notwithstanding certain attendant abuses and excrescences.

Now, most of these discussions are strongly partisan in tone, and bear much evidence of special pleading ; for the writers are advocates of either " anti-option " societies threatening repressive legislation, or of " exchange defence " unions resisting attacks on legitimate business methods by well-meaning but ignorant moral and social reformers. A study of the part the system plays in the larger produce markets is a necessary preliminary to any judgment on its merits or on its indispensability in distribution.

It is natural to begin with the producer, and examine how he markets his output. Taking cotton first, the general statement may be made that in the cotton belt of the United States most of the output is by small farmers who are often in debt to storekeepers in the neighbouring towns. They are only in a position to market a few bales, and they frequently pay their debts in kind by passing on these bales to their creditors. It would seem that the storekeepers do not treat them harshly. Competition to obtain cotton is great and the price is fair, even under circumstances so apparently adverse to the seller. High prices during the war period have enabled the majority of the small growers to pay off their obligations, and now dealings often take place directly with a factor or his agent. The factor is the first important link in the chain of middlemen between producer and manufacturer. He usually covers a wide area and works through agents who are employees in receipt of salaries, and are not paid by commission. Samples are submitted to him or his representative ; or he buys by grade, fixing a price often a considerable time ahead of delivery.

All risks due to market changes in the meantime are borne by him, and he pays on delivery, accepting the cotton as it leaves the ginneries. From him it passes, by means of spot markets in the South and otherwise, to the merchant, who sells to factories or to exporters, or who may be a merchant-exporter himself, or the American representative of a Liverpool firm. It is when the cotton is at this stage, in the merchant's hands, that dealings in it first take place on the exchanges; though futures, anticipating supply in a general way, may have been bought or sold previously. As the factor conducts his business without the intervention of the broker, it cannot be said that, up to this stage, there is unnecessary multiplication of middlemen. Moreover, competition is considerable, and in the seasons of short crops the growers usually find themselves in a position to obtain all the advantages of the resulting high prices. There is a general belief that farmers suffer serious loss from having to throw their crops on the market during the first three months after harvest. To help them to hold their crops until later in the crop year, special provision was made by the Federal Reserve Board in 1915 for the re-discount of "commodity paper," which is defined as notes secured by non-perishable staple commodities, having a specified date of maturity, and upon which member banks have charged a rate of interest or discount, including all commissions, of not more than 6 per cent. per annum. Since then increased financial facilities have been provided,¹ but it is doubtful if any tangible improvement is possible short of a complete re-casting of the whole machinery by which the cotton is collected from the growers. It is open to question whether, taking into account all the expenses incidental to holding crops, farmers in fact could realise higher prices by sending their output more gradually to market.² There is much dissatisfaction with present methods and evident need of the application of scientific management to the marketing of all farm products in all the countries of the world. The growth of co-operation among the grain farmers may perhaps offer suggestions to the cotton farmers; but the latter are not so educated and work under very dissimilar conditions.

The suggestion that the farmer should utilise the exchanges directly and sell futures on the basis of his growing crop before it is harvested, carefully selecting the period of delivery in competition with other farmers and with spinners, is not a feasible one. The impression prevails in some circles that this is actually done, and that it is in this way that the farmer benefits by the futures system. "No man,"³ it is said, "knows better than the

¹ See *Bulletins of the Federal Reserve Board*, *passim*.

² See Pope, "Can the Farmer Realise Higher Prices for his Crops by Holding them?" *Quarterly Journal of Economics*, vol. xxx, pp. 805-35; and *Report on the Winnipeg Grain Exchange*, September 10, 1921, pp. 31-43.

³ *Cotton Year Book*, 1921, pp. 31 and 32.

farmer what the green and afterwards snow-white acres are likely to yield him. His crop may be according to locality—a quarter, a third, a half, or even a bale to the acre. Let us assume that some great financial or commercial depression appears to be looming ahead in the autumn, or other violently disturbing feature like a Presidential election, with the possibilities of a congestion at harvest time of a great crop, and values down in the commercial marts of the world to all but the bare cost of production, if not below it. What a gloomy outlook for the realisation of hours and days and weary months of labour! Without the futures market the planter would be at the mercy of events, or the money lender. In the July . . . price was as low as $3\frac{1}{2}d.$ per lb.; the same standard for delivery in November was $3\frac{3}{4}d.$ per lb., while 75 per cent. of the cotton world confidently expected, and with some reason, that it would go down to $3d.$, a price which would have meant dead loss on the plantation.

“What happened in August? From various causes prices shot up $1d.$ per lb. in a few weeks, and from comparative ruin every planter was raised into opulence if he could have sold then. Yes, but he could not exchange for cash what did not exist except in green stalk and undeveloped cotton bolls. But he could, and no doubt did, in many cases protect himself, and although prices might go higher (and did go higher) at 3 to 5 cents per lb. above cost of production, he was well off if he could realise his probable out-turn, whether one hundred or five hundred bales. How could he do it? Easily enough. He had only to give a responsible broker in any recognised cotton exchange an order to sell so many hundred bales of futures for October, November, December, or any other month's delivery, at the current good prices then ruling, and sit on a fence whittling sticks, if he liked, while his crop matured, was picked, delivered, and sent to market. His price was secured; all he had to do was to deliver. Could he have done this without the aid of the futures market? Certainly not.”

This idyllic picture of the farmer selling futures and then sitting down to whittle sticks is not borne out by facts.¹ Dealing in futures is a highly specialised business, and demands intimate knowledge and ability of a kind that farmers, in the very nature of things, cannot possess. Nothing but disaster has been the result in all the cases on record where farmers have entered into such transactions on their own account. Yet they do derive undoubted advantage from the existence of the futures market, and any alteration in its degree of activity is soon reflected in the prices they are offered for their crops. That the 1908 cotton crop² “sold as low as it did was not altogether due to the size of

¹ See Wyse, “The Selling and Financing of the American Cotton Crop,” *Economic Journal*, vol. xxx. pp. 473-83.

² *Bradstreet's* 1909, p. 207.

the yield, because the figures show that it was absorbed by consumers at an unprecedented rate. The main trouble was that there prevailed an almost complete absence of speculation, which in former years helped the farmer to carry the crop and competed actively with the consumer and spinner, thus creating a higher range of values during the period of active marketing than could be possible with consumers and spinners having the market all to themselves. Despite their boasts of being able to hold their crops until they secure the prices desired, the farmers are always compelled by their necessities to sell more rapidly than spinners can normally buy. With no speculation to compete with the spinner, farmers must either carry their own burdens or sacrifice their crops," as they did in 1908. The prices offered to farmers by the factors depend on the prices of futures on the exchanges. Merchants buy from the factors on that basis, and the latter therefore buy from the farmers at so many points on or off the future delivery prices of the current period. Judgment in each case is assisted by the careful estimates and statistics of anticipated and actual crop yield, the publication of which is undertaken by the United States Department of Agriculture as well as by several private organisations.

Suppose the merchant is an exporter himself, or a representative of a Liverpool importer who has sold to a Lancashire spinner a special grade or a special description of cotton with defined length of staple, or a specified strength or specified style. It is common for spinners to enter into such contracts (c.i.f. contracts on Forms 10 and 11 of the Liverpool Cotton Association) for delivery at a specified time, the price being either fixed definitely in the agreement or indicated as so many points on or off the seller's price of ordinary futures of a certain month at time of delivery. Such contracts are entered into generally in the summer months in anticipation of the new season's supply; and the merchant or importer or seller bases his price on his prospects of obtaining the necessary supplies of the particular quality he has sold, adding to the figure at which he expects to be able to buy in America a fair margin of profit for himself. In doing this he takes the risk of the crop turning out to be smaller or less valuable than anticipated, and therefore he endeavours to protect himself if possible against serious loss on the transaction. Suppose he has, in July, sold 1,000 bales of Middling Fair for delivery in December,¹ and the price agreed on is 10'50*d.* per lb., the price on the same day for December futures (with the usual basis, Fully Middling, Low Middling clause) being 8'75. To protect himself against a rise in price, he buys December futures for 1,000 bales at 8'75. If the crop is short, or if prices rise for any other reason, it ordinarily happens that the changes in prices are

¹ In a c.i.f. contract actual delivery is contemplated on both sides.

small for the other grades as compared with Fully Middling—the basic grade in futures contracts. Therefore, if Middling Fair goes to 11·50 in December, Fully Middling may be about 9·80. He then sells December futures with which to close his July transaction, gaining 1·05*d.* per lb., and buys Middling Fair in the spot market at 11·50 to deliver to the spinner, losing 1*d.* per lb. on that part of the transaction. Thus, he not only succeeds in protecting himself against a net loss, but also makes 0·05*d.* per lb. on 1,000 bales of about 500 lb. each. This latter gain arises from the fact that, in the case supposed, the fluctuation in the price of the higher grade is of smaller magnitude than that of the futures basic grade. The reverse may be the case occasionally, and then an actual loss occurs, but it is trifling compared with the amount at stake if there had been no purchase and sale of futures.

Operating in this manner to obtain protection against a possible heavy loss is called "hedging." It is practised not alone by importers who have sold to spinners, but by importers who ship to sell in spot markets and by the spinners themselves, to insure against loss on unsold stocks of yarn or cloth. Taking the importer first, suppose he has purchased cotton in America and has settled a price which gives him a fair remuneration after all the necessary expenses of transport and warehousing are allowed for. As soon as the purchase is advised home he sells futures for a quantity of cotton equal to his purchase. If he sells at the price he has in mind and for delivery in the month during which he expects the cargo to arrive, he can tender actual cotton for delivery and completely fulfil his agreement, making as profit just the fair remuneration he had allowed for. Transactions so simple as this, however, are comparatively rare. Few cargoes are disposed of immediately on arrival, and there is always a large stock in warehouse at Liverpool remaining unsold. Moreover, the cargo may not be of a grade tenderable in fulfilment of futures. If it is warehoused and is disposed of gradually, say in lots of one or two hundred bales, futures of the quantity sold are bought in at the same time, cancelling just an equal amount of the hedges. The object of the hedging in this case is to obtain protection against falling prices. Suppose the cotton is purchased in October to arrive in November, then futures are sold at the same time for November and subsequent periods. If the spot price in October is 8·30*d.* per lb., and if it is that or a price very close to it that the importer calculates on receiving, the futures he sells may be at 8·25*d.* for November, 8·32*d.* for December, and so on. Now, since spot prices and prices of futures advance or decline together, if the spot price on day of sale in November is 8·20*d.*, the price of November futures will also have fallen, and may now be about 8·16*d.* Accordingly, if he gets 0·10*d.* per lb.

less on his spot sale than he anticipated, he recovers 0·09*d.* on his dealings in futures ; for he can buy November futures at 8·16*d.* to cancel those he sold previously at 8·25*d.*

Spinners may hedge by means of futures for protection against unsold stocks of yarn, as well as against sales of yarn for forward delivery. In a period of bad trade and falling prices, when producers cannot find sale for goods, and yet think that less loss is likely to be incurred by keeping their machinery going, they "make to stock," producing at a loss what is probably losing value day by day. If the depression continues, further heavy loss may be incurred ; and it is to keep this within tolerable limits that a spinner sells futures of raw cotton pound for pound of his yarn. As the price of yarn declines so does the price of futures ; for, to a considerable extent, the prices of raw cotton and of yarn move in unison. He can then buy back his futures at a lower price than that at which he sold them, and thus, to some extent, curtail his losses. In a period of good trade, if he has secured a remunerative contract to deliver yarn over several months ahead, even if he requires specific high-grade raw cotton only, he can avoid tying up capital temporarily in raw material and yet ensure getting what raw material he requires just when he wants it. This he does by purchasing futures and selling them out again as he buys the spot high grade his yarn demands. If the market has risen in the meantime, he has more to pay for his needs ; but then he gets more for the corresponding futures that he sells. If the market has fallen meantime, he pays less for his requirements ; but then he has a counteracting loss on his futures. Thus, if he has been correct in his calculations, which were based on the value of futures at the time he made his contract for forward delivery of yarn, he avoids all risk and the probability of any serious loss.

In a similar manner, manufacturers of cloth and of cotton goods may seek to protect themselves against loss resulting from making to stock, and from having to pay unprofitable prices for yarn or cloth when remunerative contracts for forward delivery are offered to them ; but in proportion as the share contributed by the raw material to the value of the wholly or partly manufactured article diminishes, so does the degree of protection possible through hedging by the purchase or sale of futures of raw cotton.

From the examples of hedging given, it is clear that the essence of the operation is the balancing of a possible loss in the spot market by a possible gain in futures, or (from the other point of view) the balancing of a possible loss in futures by a possible gain in the spot market, in such a way that the importer eliminates speculative risks for himself and reckons with substantial, though not complete, certainty on the remuneration for his services reasonably due to him either in the form of trading

profit or of commission. Similar considerations hold good in the case of the spinner. Absolute protection (by this means) cannot be secured. Indeed, complete protection, even in theory, is possible only when the futures basis grade (Fully Middling) is the one required by the buyer and tendered by the seller; but, largely owing to the real protection afforded when the system works smoothly, the trading profit or commission earned by the merchant and importer can be kept small. Further, the security possible to the spinner enables him to manufacture on a smaller margin of profit. Thus the gap between the price paid by the consumer and the price received by the grower is narrowed; and most of the risks are thrown on to the shoulders of that special class of dealer or speculator who looks for his profits by buying and selling futures alone, without intention either of accepting or tendering delivery of the actual commodity. The risks due to changes in prices are not distributed, as is sometimes maintained, among all the parties to the future delivery contract. They are concentrated upon this single class of experts who are to be found in all modern organised markets to-day.

The expert risk taker, the legitimate speculator, constitutes the real buffer between the producer and the consumer. When buyers are scarce during the marketing period his action assists materially in carrying the weight of the crop; for he shoulders the greater part of risk resulting from price movements. On the other hand, when buyers are numerous and sellers scarce, he performs the very useful function of selling short, *i.e.* selling what at the moment he does not possess, an operation which ultimately requires a corresponding purchase to liquidate. Thus he discounts the future and satisfies the present demands. In this way a market is furnished at any time of the year where produce can be sold or purchased at a stabilised price. Yet genuine hedging contracts by merchants form the great majority of contracts for future delivery, notwithstanding certain abuses by these experts which will be the subject of discussion later.

No account of the services rendered by hedging in the movement of cotton from producer to manufacturer is complete without reference to the attitude thereto of the banker who is called upon to finance the export and import of the produce.¹

When a British importer buys American cotton in the Southern States, his agent either pays cash, using his own money for the purpose, or he obtains credit from Southern banks. In due course the agent gets a through ² bill of lading from the railroad company, or a port ³ bill of lading, and attaches this, along

¹ See Simpson, "Financing Cotton Importing," *Report of World Cotton Conference*, June, 1921.

² See Contract Forms 10 and 11, Appendix V.

³ *Ibid.*

with marine insurance policies, to a sterling draft, representing the invoice cost of the cotton, and drawn at 60 or 90 days' sight upon the British importer or the latter's bank. The draft is then sold to a New York or other American bank, which sends it to its agent or representative in England, who presents it for acceptance to the importer or his bankers.

The bill of lading now constitutes the English bank's security for the obligations it has undertaken on behalf of its customer. When the cotton arrives it is the practice of the bank to send the bill of lading and insurance documents to the importer with a letter instructing him to claim the goods and to warehouse them in the name of the bank, or else to retain them in trust for the bank pending sale. The importer acknowledges these instructions in a letter called a "Trust Letter," in which he undertakes to do what the bank requires of him. He thus handles the cotton on trust for the banking house, although the profit or loss on the transaction is his own. As long as the cotton is unsold he is responsible to the bank for the maintenance of proper security against possible loss on its part; and if the price falls he is expected to pay the bank cash or to deposit with it additional security sufficient to cover the fall in value of the cotton and maintain a proper margin in the security. When the cotton is sold payment has to be made by the buyer in cash within ten days; and the importer is expected by the bank to pay in the proceeds of the sale at once, thus either reimbursing the bank for its advance or providing it with the funds to meet the bill it has accepted on his behalf.

Similar principles, though slightly different details, apply to the financing of imports from Egypt, South America, and India, with the addition that in certain of these cases the importer makes advances to the grower for the purpose of cultivation of the crop. As the crop comes forward to market these advances are cancelled accordingly.

For the protection of its customer as well as of itself, the bank requires that he shall hedge by the sale of futures as described above. In the case of American cotton the process is simple, and the hedge affords an exceedingly good protection for both parties. It is possible to hedge with fair success in the case of an import of Egyptian cotton by the purchase of futures in American cotton, and this is sometimes done, because the market for Egyptian futures is less active. But American futures are a very imperfect hedge in the case of cotton from Peru, Brazil, and India, the fluctuations in the prices of which do not correspond closely with the fluctuations in the prices of American cotton, though the general tendency may be the same. If prices rise the seller of futures has, as previously described, to pay differences on settlement days. When an importer finds himself under this necessity

his bank is very willing to advance the sums required, if the cotton is actually in his possession in England; for the asset presumably has advanced in value to the same extent as the futures. Naturally, the bank is more reluctant to help if the cotton has not yet come to hand, but it is asserted that during the disturbed conditions in the cotton market in recent years bankers have found money for customers far in excess of the value of cotton actually held by them as security. If prices fall exactly opposite conditions prevail, and the importer receives considerable differences in respect of the futures he has sold as hedges. He is therefore able to meet the increases of margin and security required by his bankers as the market continues to fall, and this is in addition to the protection already assured to him in consequence of the decline in the value of his purchased cotton.

When actual cotton is purchased or sold, as distinguished from futures, the usual practice is to quote the price at so many points on or off the price of futures.¹ Such points are called the "basis," and selling on a "high basis" or on a "low basis" means selling at a large or a small number of points on. In normal times the fluctuations in the basis are not great, and no special provision is required by bankers in this connection; but in the seasons 1919-20 and 1920-21 the basis in respect of some qualities of cotton fluctuated as much as two to three thousand points or more, causing unexpected loss or profit of very large amounts.² No form of futures contract can afford any protection against these movements, and all the banker can do is to satisfy himself that the importer has made his contracts on a proper basis and call upon him to reduce the advances made to him or put up additional security if the fluctuations are against him.

Reference has been made already to the hedging purchases of futures by the American merchant exporter, who has undertaken to deliver by a certain date cotton of specific grade and staple to his customer in England. In addition to the risk insured against on that particular contract, there is another risk against which

¹ *E.g.* Spot Quotation (from *Manchester Guardian*, June 17, 1921) :—

	Ord.	G.O.	F.G.O.	L.M.	F.L.M.
American .	4'65	5'40	6'15	6'65	7'10
<i>i.e.</i> .	340 off	265 off	190 off	140 off	95 off
	Mid.	F.M.	G.M.	F.G.M.	M.F.
American .	7'65	8'30	8'70	9'40	10'60
<i>i.e.</i> .	40 off	25 on	65 on	135 on	235 on

The price of futures (F.M., L.M.C.) June delivery on that day was 8'05. Hence M.F. was (10'60-8'05) × 100 points on, and G.O. was (8'05-5'40) × 100 points off.

Prices are in pence per lb., and a point is the one hundredth part of one penny.

² A change of 2,000 points in the basis means a change of more than £4,150 in the cost of 100 bales.

dealing in futures affords equal protection. The merchant has to collect cotton through his agents or from factors in various scattered districts over a wide expanse of the cotton belt, and when he has a large order for a specific grade he cannot readily know beforehand where he can buy. Hence, towards the close of a day's business, when telegraphic reports of their purchases have reached him from his agents, he may find they have bought more than he requires. He then immediately sells on the exchange the number of bales bought in excess of his needs, but instead of selling them in the spot market he sells futures instead. If spot cotton falls in price next day, he sells the bales overbought at a loss and buys back his futures at a corresponding profit; for, as has been described before, spot and futures prices move in sympathy. If, on the contrary, his agents have not bought enough to cover the amount he has sold, he buys futures instead, with a view to protecting himself against a rise in the price when his agents again start buying for him on the following day.

Contracts for future delivery were common in the cotton trade for some time before their use as hedges was discovered. According to a former President of the New York Cotton Exchange,¹ it was two or three years after the Civil War that the late Mr. Rew, a Liverpool merchant, saw that the newly-laid Atlantic cable made it possible for a cotton merchant in Liverpool to buy cotton in the Southern States and ship it to Liverpool to arrive at a date known approximately beforehand. He perceived also that if the price for "cotton to arrive" was high enough to enable him to make a profit by buying in America and selling for forward delivery two or three months ahead in Liverpool, the transaction was a perfectly safe one; for he would either deliver to the party to whom he sold, or, if the price had risen meantime, buy back his contracts and sell to spinners at the higher price. In this way he eliminated all risk from his business, and worked on a much smaller margin than his competitors, who had to allow for possible losses as well. On the organisation of the three chief cotton exchanges (New York, New Orleans, and Liverpool) in 1870 the leading members adopted this new method as the basis of business.

It is strange that neither its inventor nor his imitators in the early days of hedging realised at once the full significance, or even the true economic basis, of the new method. They regarded it simply as a device by which genuine cotton merchants could make use of the natural inclination of foolish speculators to buy for a rise in price, turning this into a form of protection or insurance for themselves against a decline in the value of their

¹ Marsh, "Cotton Exchanges and their Economic Function," *Annals of the American Academy of Political and Social Science*, vol. xxxviii.

unsold stock of cotton. But it was soon perceived that it is just as feasible to obtain protection against loss in transactions contemplating delivery in the future, to hedge by buying contracts for future delivery, as it is to protect oneself against a fall in prices by selling contracts as hedges. There arose, therefore, a demand for futures on the part of merchants and manufacturers who were not speculators at all in any sense of the word, but who were simply desirous of entering into engagements for the future. These hedge contracts, both on the part of the buyer and of the seller, were, from the first, regarded as primarily credit transactions to be terminated as soon as their protection was no longer needed. They could, of course, be turned into dealings in actual cotton by any one who so desired, but in practice it was found that only a small percentage of the whole was terminated in this way.

The essence of hedging is the making of two contracts at about the same time of an opposite,¹ though corresponding, nature; one a genuine trade contract, with a view to obtaining a dealer's ordinary trade profit, the other an insurance or protective contract, which counteracts speculative loss (and profit) on the first transaction. The possibility of having to forego a large speculative profit in this way is to be regarded as a premium on an insurance policy² which guarantees the holder against speculative loss. Just as both contracts are entered into at about the same time, so they must be completed at about the same time. Otherwise, speculative loss or profit ensues; and the holder becomes a gambler instead of continuing to be an honest merchant.

Wheat → Owing to the wider area of origin and of ultimate distribution, and because of the greater ease with which it can be handled, it is natural to expect that wheat should pass through a greater number of middlemen than cotton, on its way from producer to manufacturer and consumer. This, however, is not the case; for the greater degree of education of the wheat farmer, and the more detailed attention given by governments to the movements of what is one of the world's most important foodstuffs, have eliminated at least one class of middleman and subjected the remainder to an exceedingly close inspection and supervision.

In the United States wheat is delivered by the farmers to the country elevators, of which there are three kinds—independent,

¹ As defined by another ex-president of the New York Cotton Exchange, "a hedge or future is the purchase or sale of contracts for 100 or more bales of cotton for future delivery made not for the purpose of receiving or delivering actual cotton, but as an insurance against fluctuations in the market that might unfavourably affect other ventures in which the buyer or seller is actually engaged." But, as there are cases when dealing in futures is certainly not hedging, it is incorrect to identify the two terms "hedge" and "future," as is done in this definition.

² This analogy, however, must not be pushed too far.

farmers', and line. The independent are single elevators owned by individuals at selected country points. A farmers' elevator company is an association of farmers usually on a co-operative basis,¹ while a line elevator company is a corporation with its headquarters in Chicago, Duluth, Minneapolis, or other primary market for grain, owning and operating a large number of elevators along a line or lines of railroad extending through several different States, and having a representative as a member of one or more exchanges. At each of a line company's elevators the wheat is bought from the farmers for cash after grading. Owing to competition for the grain at country points there is a tendency to allow as high a grade as possible, so as to secure it from the farmer, with the result that it sometimes grades lower in the primary market afterwards, and scarcely ever higher. It is then held temporarily in the local elevator; and, as it accumulates, it is loaded into railroad cars and sent forward to the primary market.

The price received by the farmer is that prevailing at the moment in the primary market, minus deductions for freight and probable deterioration. If, for example, the freight rate to Duluth were 6 cents per bushel, and the margin of the elevator company for handling wheat were 3 cents per bushel, then the country price would be 9 cents less than the price in Duluth. Flax, oats, maize, and barley are also handled by these companies; but, while oats and coarse grains are dealt in on a smaller margin than wheat, flax, owing to its greater liability to deterioration, is only dealt in on a margin of 6 or more cents per bushel. Daily lists of prices are sent out from headquarters by letter and telegraph; and changes conform to those taking place in the primary market.

The farmers' elevator companies act similarly, with the difference that they do not always have seats on the exchanges, but have to employ commission men. They have certain advantages over the line companies, in that they can get control more readily of the available supplies of grain; for their members give them preference inasmuch as the profits of the concerns depend on the amount of produce handled. There are often, at a single station, four or five line elevators owned by different companies and a single farmers' elevator owned by the farmers of the neighbourhood. Yet the latter may handle from one-third to one-half of the grain sent forward from that station, thus doing a much greater volume of business at approximately the same expense, and therefore at a lower cost per bushel than the line companies. The inducement, therefore, to develop the handling of their wheat by the farmers themselves is great; and line companies find their

¹ See "Co-operative Grain Marketing," United States Department of Agriculture, *Bulletin*, No. 937.

most profitable sphere only where capital is scarce and farmers' societies not yet fully developed. Statistics show a continual increase year by year of farmers' elevators accompanied by a marked decline in line houses and a smaller decline in independent houses.

The management of the independent elevators is identical with that of the farmers', except for the co-operative ownership in the case of the latter. In competition with line elevators, the independent have the advantage because they are regarded as a competitive force in sustaining prices. Like the farmers' companies, they employ commission men to dispose of their grain in the primary market.

On reaching the primary market the grain is sold on the floor of the exchange, either by the line elevator companies' representatives, or by the commission men acting for the farmers' companies, or the independent elevators. The purchasers are the large terminal elevator companies or millers.

There are three types of contract in use when the sale is to a terminal elevator company—the "to arrive" contract, the "on track" sale, and the "in store" sale. The terms are largely self-explanatory. In a "to arrive" sale the country elevator sells large lots of ten to one hundred thousand bushels, undertaking to deliver within fifteen days. The wheat is then sent forward at once to the purchasers; and the trouble of selling each railroad car load on its arrival is dispensed with. This is a convenient method of taking full advantage of temporary advances in the primary market prices.

In an "on track" sale the wheat is sent forward from the country elevator unsold. Upon arrival in the primary market it is sold in car lots, and, at the time of sale, the railroad company is given orders to switch the cars to the purchaser's warehouse. The unloading is done under supervision of State officials, and the weighing by one of their number. On this basis the seller then makes out his bill and presents it for payment.

In an "in store" sale the wheat is not sold immediately on its arrival in the primary market, but is stored in a terminal elevator company's store for the account of the country owner. All public elevators are required to accept grain for storage as long as any space remains; and the country elevators may use these facilities, on payment of the storage charges, awaiting more favourable conditions for marketing the grain. When the grain is sold, delivery is made by endorsing the elevator receipt to the purchaser.

A line elevator company, having usually a large capital, and having always its own direct representative on the exchange, is not confronted with the same difficulties in financing its business as the farmers' elevator companies and the independent elevators, which have to employ commission men. The latter

receive a commission of so much per bushel (1 cent in case of wheat) for their services, which often include the providing of valuable credit facilities for their clients. When the independent dealers and the farmers' elevator companies send forward wheat from their country elevators they cannot wait for payment until it is sold in the primary market; because their capital is not sufficient to enable them to purchase more grain without immediate payment for what they have already disposed of. It is then the commission man comes to the rescue by permitting them to draw a bill on him and lodge it, along with the bill of lading of the wheat, at their local bank, which is prepared to grant them, on this security, the further credit they require. In a normal state of the market they may draw against their commission men up to 90 per cent. of the value of the wheat sent forward.

A more difficult situation arises for the country elevators when no railroad cars are available to carry the wheat forward to the primary market. They soon come to the end of their capital resources and have no further money to pay for the grain which is still coming in from the farmers. In such an emergency the commission firms advance funds on open account up to a certain amount without requiring bills of lading or other security to be deposited. When the grain finally reaches the primary market and is sold, these advances are, of course, deducted in making the settlement.

Most of the wheat reaching the primary markets is sold to the large terminal elevator companies and to millers for local use. The latter is particularly the case in Minneapolis, the largest milling centre in the world; while in Chicago and Duluth by far the greater part finds its way to the elevator companies. These companies own public elevators and must accept grain for storage at certain uniform rates. They, however, mainly purchase outright on the exchanges as already described, and store the wheat until they re-sell, when convenient. Much judgment is needed in reaching a decision when to buy and when to accept for store only, on behalf of others. Normally, wheat can be bought in the months immediately succeeding harvest at a price which is less than futures of the months later in the crop year by just the amount of the carrying charges; but outside factors often intervene to spoil this harmony.

As wheat is graded both on being delivered to the terminal elevators and on leaving them, it is possible for the companies to derive large profits from mixing grain if they can succeed in obtaining, on the whole, higher grades on the "out inspection" than on the "in inspection." This is regarded as a perfectly legitimate proceeding if carried on under certain conditions; and there can be no doubt that the services performed, such as cleaning the grain when it is in their keeping, clearly entitle them to some reward.

To carry large quantities of wheat for several months evidently requires considerable capital, but in addition to their own capital these companies borrow largely from the banks. The very stringent rules governing the issue of elevator receipts make these documents acceptable to the banks as security ; and the latter ordinarily lend up to quite 90 per cent. of their market value if lodged with them as collateral security.

From the terminal elevators the wheat is sold to the exporter or shipper who may purchase in the primary markets or in markets on the sea board, such as the New York Produce Exchange or Philadelphia. In both cases the procedure is identical ; but it is desirable, before passing on to it, to describe how hedging is accomplished by the several interests through whose hands the grain has passed up to this stage.

When a country elevator buys wheat from farmers it may, for several reasons, have to wait some time before passing the grain on to the primary market. It must therefore protect itself against a decline in price in the meantime. This is done by hedging. Suppose 5,000 bushels have been bought for cash from farmers shortly after harvest, at a time when the price in the primary market is \$1.20 per bushel. An equivalent amount of May futures is then sold in the primary market ; and, as the price of May futures usually exceeds that of spot by the cost of carrying the wheat until May, their price at that moment is probably about \$1.26 per bushel. If the cash price declines to \$1.18 when the wheat is sent forward there is a loss of two points per bushel upon the actual wheat held. But it is extremely probable that a similar drop, for precisely the same reasons, will take place in the price of May wheat. Accordingly, the country elevator can buy back May futures at \$1.24, thus gaining on the futures what it lost on the spot sales. As it had already provided for its ordinary trade profit in the difference between the primary market price (\$1.20) and the price it paid the farmer (probably about \$1.10), it has thus ensured itself against loss consequent on the fall in price. In an exactly similar manner it foregoes extra speculative profit arising out of a possible advance in price, but this self-denial is the cost of the protection afforded by the hedging transaction.

All country elevator companies hedge. In fact, the keeping of their purchases properly hedged is an essential condition of their receiving credit or advances from the commission men.

What applies to the country elevator companies applies with equal force to the terminal elevator companies. They may have to hold large quantities of wheat for which there is no immediate demand by millers or exporters. They therefore run similar risk of heavy loss owing to a decline in price, or, on the other hand, in case of a rise in price they likewise stand to gain. Even if they were inclined to speculate and take chances, the banks

would not permit them. All wheat held by them on which a loan is sought must be hedged. They are in the business of storing and mixing grain. The assumption of speculative risk is the function of another class.

Millers who sell flour in advance also find it advantageous to hedge. If a miller in August enters into a contract to supply flour in January, he will require the wheat in November and December. He therefore bases his price upon the August price for wheat to be delivered in November or December; and at once buys futures of the latter. He thus gets the wheat at the time he wants it and at a price which assures him his legitimate milling profit. In this case, futures are purchased to cover sales of flour in advance, and delivery is usually contemplated by the buyer. If, however, a special grade of wheat is required, and one not tenderable in fulfillment of futures contract, the miller sells his futures and purchases his requirements in the spot market. The fact that prices of the various grades of wheat always move in the same direction makes a hedge in the contract grade an adequate protection, even if it is another grade that is required.

The exporter is often in a position similar to that of the terminal elevator companies in having to buy up large quantities of wheat and hold it for longer or shorter periods. To quote a leading American exporter ¹—

“From an export or milling standpoint you cannot always buy the grain you need in the exact position desired; it must be bought when there, and, perhaps, at that moment foreign markets or domestic flour markets are not in line to buy the product the same day; in which case we use the hedge in the market to guard against any material fluctuation in the price basis while we are awaiting a market for the actual wheat. As a rule, these hedges would be placed as far off as possible, because in normal markets the far off hedges can usually be sold at a premium over the cash price, thus in a measure getting back the expense of storing, insurance, and interest.”

The following extract from *The Market Reporter* ² of June 11, 1921, is of interest, for it points out another aspect of the exporter's work—

“A fair export business in new crop wheat for shipment up to September has been reported. The September future has been the basis for export transactions since trading for delivery in that month began. That is, exporters have sold wheat for export for deferred shipment and at the same time bought the September future as a hedge.”

The wheat trade in Canada is regulated by the Dominion Government under the Canada Grain Act of 1912, and, in a general

¹ Mr. J. H. Barnes, former President, Duluth, Board of Trade.

² The official weekly publication of the United States Department of Agriculture Bureau of Markets and Crop Estimates.

way, Canadian methods resemble those of the United States.¹ The later development, however, of the Manitoba wheat-fields has enabled American experience to be drawn on, and many improvements to be introduced from the very outset in Canada, which even now are still under discussion elsewhere. For the purposes of the trade, two divisions are made, the eastern and the western. The former comprises the maritime provinces of the Atlantic, Quebec, and that part of Ontario east of Port Arthur. The latter comprises the remainder of the Dominion, including the city of Port Arthur. The Winnipeg Grain Exchange is the only important grain market in the Dominion.

The country elevators in Canada are now mainly owned and operated by large farmers' co-operative companies, though many still belong to ordinary commercial companies. From the country elevators, the wheat passes on to "public" or "eastern" elevators after inspection and grading. Thence it is sent forward to "terminal" ² elevators, where it is graded again on both entrance and exit. From them it passes to the exporter or miller. The Dominion Government may itself erect and operate terminal grain elevators under the Canada Grain Act; and the wide powers of inspection possessed by it ensure complete control over those in use that it has not yet taken over. There are also "hospital" elevators for the cleaning and special treatment of rejected or damaged grain, and "mill" elevators for use in the manufacture of grain products in the western division.

Though the prosperity of Canada is now largely dependent on the progress of the western grain trade, it is a trade of very recent origin; for it was not until 1884 that wheat was exported from provinces other than Ontario. The great distances to the Canadian Atlantic ports, the poor facilities provided by them for handling grain in the early days of the trade, and the smaller and less varied trade at those ports than at those of the United States all combined to divert the export trade to American ports; and it is only comparatively recently that attempts to keep the trade altogether in Canadian territory ³ have met with a measure of success.

Tariffs for a time prevented trade in wheat between Canada and the United States itself, and Canadian wheat passed in bond to United States ports. This is still largely the case, notwithstanding

¹ For detailed description two recent publications may be consulted: the Stewart-Riddell *Report to the Government of Saskatchewan on Wheat Marketing*, Regina, 1921; and the *Report on the Winnipeg Grain Exchange*, September 10, 1921.

² So-called because, there, all government grading and inspection ceases.

³ See Porritt, "Canada's National Grain Route," *Political Science Quarterly*, vol. xxxiii, pp. 344-77. *Report of Trial Shipment of Bulk Wheat from Vancouver via the Panama Canal to the United Kingdom*, Department of Trade and Commerce, 1918. *Report on the Grain Trade of Canada*, 1920, p. 8.

the absence now of any tariff restrictions, probably in order to maintain identity and Canadian grades ; and dealings in Canadian wheat futures are not common on the American exchanges. Yet they do occur, and in 1912 rules were drawn up by the New York Produce Exchange for their control. Bonded wheat at the port of New York is always Canadian grown, and offers to buy it or sell it for future delivery must be made in lots of 5,000 bushels or multiples thereof. The four statutory grades of Manitoba spring wheat are deliverable on these contracts—No. 1 Northern, without either premium or discount, No. 1 Hard (the wheat which gave Manitoba its fame) at a premium of 1 cent per bushel, No. 2 and No. 3 Northern at discounts of 3 and 8 cents per bushel respectively. These premiums and discounts, of course, may be changed so as to conform to any change made in premiums or discounts in the Canadian markets. The direct trade between the two countries is normally small ; but there was a marked increase in 1920,¹ there being heavy exports of old wheat from the United States to Canada between May and August (the last four months of the crop year) and large imports from Canada of the new crop in October and November. Much of the American wheat sent to Canada is re-exported.

An American or Canadian exporter of wheat buys largely in the primary markets of the United States and in Winnipeg, and sells through brokers on the exchanges of the United Kingdom and the Continent. His offers are cabled in the afternoon of one day and the acceptances are received by him the following morning with the names of the purchasers and shipping directions. He then contracts for ocean freight to the amount needed, whether the sale is for immediate or future shipment. This he can do on the exchange, because shipowners are represented there. It is in connection with this item that he has to exercise the greatest care ; for freight rates are subject to considerable fluctuation, against which no protection that is adequate can readily be obtained.

When details are arranged the exporter draws a bill against the purchaser, and payment is obtained just as in any ordinary import and export transaction. Many considerations weigh with such a dealer in fixing the price at which he can sell, such as the price at which he has bought, the rate of exchange between New York and foreign centres, freight, insurance, broker's commission, and so on. During the time he holds grain awaiting shipment he hedges in the usual manner.

In addition to his own export business, an American exporter in the seaboard market may act as agent for an exporter in a primary market, or for Canadian exporters who have to use American ports. In some cases, too, he may act as representative

¹ See *Bradstreet's*, January 1, 1921. This increase is being maintained in 1921.

of a Liverpool or Continental importer. For all these extra duties he is remunerated on the basis of an agreed commission.

The Liverpool Corn Trade Association, Limited, now provides the only market for futures in wheat in Europe. Its form of contract¹ permits the tendering of a fairly large number of grades or types. This is of distinct advantage to millers and others who use Liverpool grain futures as hedges; for the professional gambler is not so common there as on the America Exchanges, and futures are consequently more often used for their legitimate function.

The Liverpool method of making allowances for differences between the tenderable grades is a variant of the method of fixed differences usual in America. Each tenderable variety must weigh so many pounds per imperial bushel at the time of grading; and this basis of weight is altered with the grade. For instance, Northern Spring wheat, grown in the United States, is tenderable with basis of weight 59 lb.; while American Hard Winter wheat must have basis 60½ lb., and so on. In addition, mutual allowances for superiority or inferiority of grade may be permitted, provided they do not exceed one penny per cental (100 lb.).

The general principles underlying hedging in the Liverpool grain market are not different from those already discussed in connection with hedging operations in the other grain markets and in the cotton market. Since Liverpool is second only in importance to Minneapolis as a flour milling centre, it is natural to expect that most of the hedging there is done by millers. This is accomplished in two ways, one of which has been referred to before as the normal way of the American miller. The other, the method of which is not uncommon in America also, consists in buying specific lots direct from foreign exporters, through agents on the spot, and then selling immediately in Liverpool an equal quantity of wheat (Liverpool grade) for delivery at about the time the cargo is due to arrive. If the price falls in the interval, the miller's output from this newly arrived wheat will have to compete with flour made from cheaper wheat; but in return for the loss so experienced there will be a corresponding profit on the futures sold, for they can be bought back at a lower price. Similarly, if prices advance in the interval, what is gained from the resultant advance in flour is lost on the re-purchase of the futures. Of course, the balance of loss and gain will not be exact in either case; for, just as with cotton, there may be divergences between the price movements of the standard grade and those of the grades the miller requires. These, however, are seldom great, and hedging in this manner is an almost perfect insurance.

If these two methods of hedging were practised equally on the same exchange, the resulting risks would largely cancel one another, leaving very little to be borne by the professional

¹ See Appendix IV.

speculative element in the market. But, on the whole, it would seem that there are fairly cogent reasons why millers should prefer the first method, and ensure getting what they need by first buying futures on the exchange and then invoicing them back, or selling them (to buy the grades they need in the spot market), rather than by entering into contracts for the future delivery of specific lots. Contracts of the latter kind are difficult to conclude and uncertain as regards fulfilment. Moreover, the high degree of perfection to which British milling has attained,¹ and the very great variety of wheats offered at any moment in the Liverpool spot market, make it easy for a miller to obtain a choice of several groupings of grades, any one of which will give him the result he requires. Therefore, if he purchases futures apportioned to the times when he needs wheat, he obtains command of the requisite funds at the proper moment; and he can buy, after inspection, one of the combinations of varieties suited to his purpose. Incidentally, he can take advantage of possible fluctuations in the relative current prices of the various sorts, and can select that combination which gives him a greater profit than the others open to him at the moment.

The practice of hedging, therefore, is universal in the cotton and wheat trades. Merchants rarely or never take up uncovered positions, and not to hedge is to be a speculator or a gambler of a reckless kind. More than ninety per cent. of the holdings in the great wheat elevators in the primary markets of the United States, and in the Canadian elevators also, are protected in this way; and nine-tenths of all the cotton shipped from America to the Mersey is sold against either in New York or in Liverpool.

To sum up, then, in brief, the case for futures dealing, it would seem that, in the first place, it facilitates the banks in financing the movement of produce; because it increases the security for loans, and also the liquidity of the security, since there is always a market for futures. Moreover, it permits those engaged in crop movement to work with considerably less capital than they would otherwise require.

In the second place, it is advantageous to these latter interests in another way; for it enables them to insure against the risk of price fluctuations, and thus to trade on a smaller margin of profit.

Finally, it is advantageous to the producer because it frees him from the risk of price fluctuations which, otherwise, would be thrust upon him. At the same time, it secures him more competition for his produce, and thus reduces his marketing costs. Wheat and cotton are, in consequence, marketed at less cost to the farmer than the other farm products which are not the subject of dealings in futures.

¹ See Hubback, "Some Aspects of International Wheat Trade," *Economic Journal*, vol. xxi. pp. 121-31.

CHAPTER VIII

THE WORK OF THE EXPERT SPECULATOR

EXPERT risk taking, or professional speculation, the existence of which is necessary for successful hedging on the part of genuine traders in the organised produce markets, is a comparatively recent development, owing its growth to the new economic conditions of the last half century. The increase of large scale production in industry, with its accompanying concentration of population, rendered more difficult the problem of equal distribution in time of the main staples of commerce. This could only be solved by a very systematically developed process of exchange under which changes in value inevitably assumed an importance they had hitherto lacked. It is in connection with these fluctuations that the new class of speculator originated; and the service it renders to society is that of bearing risks incident to changes in value. (in other words, trading risks.)

In a primitive state of society agriculture was attended by the risk of failure of crops. As long as the community sought to produce only just enough for its own support, the risk run was the simple one of failure. It was not until it began to raise more corn than was needed for its own use, in the hope of exchanging the surplus for other commodities, that the risk became of quite another kind. Crops might be produced in all the abundance desired; but, unless there were others who wanted the surplus, and had, in turn, a surplus of other commodities to offer, it would profit the community nothing. In other words, the production of a surplus with a view to exchange gave rise to a new risk—trade risk. The corn produced might not be of the value expected, and, in so far as the risk of this possibility was assumed, the community speculated.

So long as society remained in a simple state of organisation, producer and trader were one and the same person who bore the double risk of production and of trade. In the case of some commodities this condition lasted during a considerable period; but in the case of others there soon arose a distinct trading class, who bought to sell again, with a view to making a profit on the transaction. Such a class is not necessary for exchange, and some

business is still done without the trader intervening, but no large development of exchange of goods is possible until such a class arises and the trader becomes differentiated from the producer.¹ This new class soon became ready to take over at any time the surplus product of the producer class and to arrange for its exchange when possible. Thus, it took over the trading risks of a change in value from the producers and became the speculating class in the community.

As men gave up the idea of producing only for their own consumption, the market for the exchange of goods became more steady and the growth of intercourse among traders tended to lessen the risks they were assuming. The rise of great centres of trade and special markets, the gathering of traders at important fairs, and their constant meetings at smaller centres, all increased the knowledge of market conditions, and diminished the risks of fluctuation in value. Moreover, the special organisations formed by merchants (the forerunners of the modern exchanges) brought together the leading traders and helped to spread information through a wider group. By these means trading risks were lessened, merely local influences discounted, and moderate profits assured to the ordinary trader under ordinary circumstances.

In the case of agricultural products, the supply of which depends on conditions of climate and weather which cannot be controlled, and also in the case of goods from distant sources of supply, there always remains the possibility of an unexpected gain or loss far greater than is at the basis of trade in other commodities. This larger risk was beyond the ability of the average trader to assume; and in the course of time there appeared a tendency for middlemen to divide into grades, and a distinction sprang up between wholesale and retail dealers. When this happened the risks were borne chiefly by the wholesale merchants; for the retailers dealt in small quantities, and, having only a local demand to cope with, had little or nothing to fear from sudden changes in supply. The chief economic functions, therefore, of the trade were fulfilled by the wholesale dealers who had to develop large centres of supply with facilities for storage, and who acquired a detailed knowledge of the needs of each locality, and undertook to estimate future conditions with a high degree of accuracy. Such is the existing system of trade in several commodities to-day.

Before the development of transport and of telegraphic communication, the important markets of the world were, on the whole,

¹ See Fuchs, *Der Waren-Terminhandel*, Part III, and for the whole question of the historical development of trade and commerce, Schönberg, *Handbuch*, vol. ii, article "Handel" by Lexis, and the writings of Schmoller and Lexis elsewhere.

independent of one another. Of course, the output at the sources of supply ultimately affected value everywhere; but conditions changed so much more rapidly than news could be carried that, except over long periods, it was the supply and demand within each limited area that regulated the prices for that part. Consequently, even the large wholesale merchants were concerned only with local conditions; and they bore as part of their ordinary business such speculative risks as arose from the fluctuations in price.

After the middle of the nineteenth century all this was changed. Markets no longer were influenced by local conditions only, and prices no longer depended on the stores in one centre or even on the crop of one single country. The supplies of wheat, for example, known to be in existence in any quarter of the world, influence the price in the Liverpool market; and news of good or bad crops anywhere is at once reflected in a universal change in value. The wheat market has ceased to be local. It has become a world market.

This new development, especially in the case of wheat and cotton, has brought about a single price at any moment in all the local markets, which are now linked together in one single world market. Fluctuations in price are, therefore, no longer dependent on local scarcity or abundance, but on world-wide connections and distant conditions which no merchant, however well he knows his own local market, can study sufficiently to justify him assuming the new speculative risks caused thereby. He is primarily concerned with buying, storing and moving actual commodities; and he has little time left to watch the ever-changing state of the world market.

The need for a distinct group prepared to relieve the merchant of the speculative element of his business has been met by making sharper the growing differentiation between the trading element and the element that was becoming more interested in speculation than in business proper. The latter began to assume the new risks by being prepared to take over from, and equally at any moment to deliver supplies to, the merchant at an established market price. Thus, speculation has become the business of a special group and the speculators, instead of seeking their own markets and moving their own goods, are a new class distinct from both producers and merchants. "Whereas formerly each man bore his own risks, the new class has arisen to relieve him of these risks; instead of all traders speculating a little, a special class speculates much."¹

From an individual point of view, therefore, the class of expert speculators is that group which seeks to forecast changes

¹ Emery, *Speculation on the Stock and Produce Exchanges of the United States*, p. 109.

in value, and buys and sells accordingly, with the intention of securing as profit the difference between the two prices. From the point of view of the genuine dealer it is that group in his market which assumes the main risk of changes in value of the produce as it passes from producer to consumer. It is a kind of commercial scouting party sent ahead to discover and report changes in value, and thus to direct trade into those channels along which the greatest efficiency requires it to run.

The fact that, like gambling, speculation depends on uncertainties, tends to cause the two words to be used indiscriminately, in referring to the produce exchanges, by those who wish to forbid dealings in futures altogether. Whether the two terms are interchangeable, or whether intent or purpose is a sufficient criterion whereby to distinguish between them, is open to question;¹ but there is one point always to be borne in mind in this connection. In form there is no difference between a contract entered into by a speculator and one entered into by a merchant who contemplates actually to make, or to receive, future delivery of the produce. Both incur the duties and acquire the rights of holders of property. Delivery in every case may be tendered or demanded; and due provision is made on all exchanges for cases of failure of either party to fulfil the terms of the contract. In gambling, on the other hand, there is no similar acquisition of legal rights or duties. One party must lose what the other wins; and the case is not at all analogous to that of a sale of wheat, for example, by a middleman speculator, at an increased price. In the latter instance there has been an actual increase in value to which probably the speculator has contributed by the responsibilities he shouldered during the short time he has had constructive legal possession.

Again, the detailed nature of the work done by the speculator sufficiently far removes it from the realms of the mere staking of money on the artificially created risks of some chance event. Using the collection of trade information and crop reports available, he has to exercise his judgment thereon in the form of actual transactions, and thus convey this information to the general public in the only way in which an impression can be made, that is, by an alteration in the price quoted. By this means the effect of a short or of a particularly good crop is discounted weeks in advance; and, when the bad or good news has become generally known, its influence on the market price is apparently slight. The speculators have already discounted the news, and the market has already adjusted itself to the actual conditions. "With this body of keen experts striving" by every means "to discover and to foresee every event bearing on values, speculation has been

¹ See Hadley, *Economics*, p. 110, and MacCulloch, *Principles of Political Economy*, also Report of Hughes Committee, referred to later in this chapter.

well defined as the struggle of the well-equipped intelligence against the rough power of chance." ¹

[An expert speculator may either buy futures with the hope of making a profit by re-selling at a higher price; or he may sell futures with the hope of making a profit by buying in at a reduced price. Those who trade for a rise are called "bulls," and are said to be "long on the commodity," or "on the long side of the market." If their expectations are realised and the price does go up, they sell out and are said to "unload" or "liquidate" or "realise," and take their profits. Those who trade for a fall are called "bears," and if they do not have the commodities at the time they sell they are said to "sell short," or "to make a short sale." If their expectations are realised and the price falls, they are said to "cover" their short sales by making a purchase of the same amount deliverable at the same time.]

It may happen that a seller of wheat (or other commodity), on an exchange, for future delivery has the actual grain in his possession, and is therefore protecting it by hedging, and is not a speculative short seller at all. Yet, so far as the market for futures is concerned, he appears as a short seller; for in a sale for future delivery there is no way of telling whether the grain is in the hands of the seller or not. Investigation shows that a fair proportion of the sales of futures on all the exchanges are purely speculative short sales.)

Every seller for future delivery must contemplate actual delivery in the period named in the contract, and similarly every buyer must contemplate actual receipt; but the aggregate amount of the commodity represented by purchases and sales for future delivery vastly exceeds the amount actually delivered. [The annual American cotton crop, for instance, is said to be sold from twenty to forty times over on the cotton exchanges, and the same applies to wheat. This is because the commodity is bought and sold over and over again for future delivery a great many times before the month of delivery arrives.² When a dealer buys

¹ Emery, *op. cit.*, p. 117, translated from Cohn, *System der Finanzwissenschaft*, p. 463.

² The number of futures transactions in comparison with the actual grain handled on an exchange may also be increased in one or more of the following ways:—

(a) Wheat stored in elevators in October, for example, is sold against in the futures market for a certain delivery. It is found necessary very often to change the delivery period, every month perhaps, as the storage continues. Every such change of hedge from one delivery month to another is a new transaction in futures, even though there is no change of ownership of the grain.

(b) Hedging in distant markets may be practised. Grain moving from Australia to Hamburg, for example, may be sold against in Liverpool or Chicago or Winnipeg.

(c) Transfer of hedges may also take place. A holder may sell out

1,000 bales of cotton or 5,000 centals of wheat as a speculation he may re-sell it within an hour or two at a small profit per lb. or per cental.) The dealings of a single trader may thus amount in the course of one day to a very large number of bales or centals.) It is this constant buying and selling that makes the "continuous" market which is such a necessary feature of the exchanges for those merchants who wish to hedge, and which accounts for that very large volume of dealing in futures which is so often the subject of adverse comment by those who consider legitimate speculation to be gambling. It is by this continual interchange that price is adjusted to supply and demand; and the larger the volume of futures handled in any one market, the more delicate is the adjustment to the influences that ought to help in its determination.

(The method by which futures are largely cancelled one by another has been already referred to in the discussion on clearing houses. By this means hundreds of contracts involving exceedingly large amounts of produce disappear, leaving very few over to be carried out by the actual delivery of produce. Even these are only terminated by delivery when there is a strong desire on the part of the buyers to receive produce. The fact is, such contracts are not permitted to run on to their delivery periods unless the buyer has purchased with that intention. The speculator constantly balances up, in some markets so frequently that he is rarely long or short, even from one day to the following. It is only those who actually wish to deliver who remain short until the delivery period, and only those who really desire produce to be delivered to them that remain on the long side of the market.)

It has sometimes been advocated, by those who wish to curtail what they consider to be the gambling element on the exchanges, that dealing in futures should take place only in connection with hedging transactions, and that speculation unconnected with the protection of actual transactions, but merely with the object of obtaining profits from price fluctuations, should be prohibited.¹ This is hardly practicable, and, even if it were, it would so narrow and cripple the market for futures as to destroy its efficiency for hedging purposes. Apart from the difficulty of determining the meaning of orders from outside markets, and much hedging is done in distant markets, it would be impossible, even in the case of contracts concluded within a single market, to ascertain whether the buyer or seller, or both, were hedging or speculating. Moreover, the trouble of finding at any one moment when a dealer requires, say, 10,000 bales of cotton as a hedge, a person or persons

futures in Liverpool and buy an equal amount in Chicago or Winnipeg. Certain market conditions might render this desirable.

Similar considerations hold good in the case of cotton.

¹ By legislation similar to the Capper-Tiicher Act, Appendix I.

who wish to sell in the aggregate just 10,000 bales as a hedge would be serious. Such a condition might exist once in a while, but it is highly improbable that, as a rule, the wants of hedgers would exactly offset one another during business hours from day to day. Indeed, it is certain that this rarely happens; for hedging sales at one time of the year exceed hedging purchases, and the opposite is true at another time. When produce is being collected in warehouses and elevators during the autumn, hedging sales, many in number, have to be made; while, later in the crop year, as the stores diminish, the volume of hedging purchases is the greater. Cotton spinners and millers do perhaps distribute their hedging purchases with some approach to uniformity all the year round; but they constitute only a portion of the whole market. The market for hedging transactions is, therefore, dependent on the existence of the expert speculator. He is ever ready to buy and to sell, stepping in to level up when either buyers or sellers are in demand. It is on him that the continuity of the market depends, without which there could be no means of insurance to the actual dealer in produce. Hedging would be almost impossible without him.

The bear speculator is one of the strongest factors in steadying price movements, and in obviating extreme fluctuations. It is not that short sellers actually determine prices. All they do is simply, by the act of selling, to express their judgment as to what prices will be in the future. If they are mistaken, they pay the penalty for their errors of judgment, by having to enter the market and buy at higher prices. Most people are unduly optimistic; and the higher the price goes the more elated they become. The presence of short sellers resisting this tendency to excessive rise is very salutary; for it makes an excessive rise extremely expensive. At the same time, when the drop takes place, short sellers, to realise their profits, must become buyers in order to cover. In this way, an excessive drop in price is likewise avoided. Short-selling, therefore, does not unduly depress prices as is often asserted; but it is, instead, a very powerful agent in steadying them. Over and over again prices are sustained or are put up at the expense of the shorts, who often, when a fall really occurs, hasten to cover before the drop becomes too great, only to succeed in driving the price up to and beyond its former level. Short selling is thus a beneficial factor in steadying prices; and it is by its means that the discounting of serious and unfavourable events does not take the form of a series of sudden catastrophes, but, instead, is spread out over a reasonably long period of time, permitting the real holder of produce to observe what is happening and giving him time to limit his loss if he is caught on the wrong side of the market. From the constant contests of short-sellers with the bulls a much

truer level of prices is evolved than could otherwise ensue. (To quote the *Report of Governor Hughes's Committee on Speculation in Securities and Commodities*,¹ "no other means of restraining unwarranted marking up and down of prices has been suggested" anywhere; for the bulls take care of the interests of the farmer and are always looking for an opportunity to send prices up; while the bears represent the consumer, always on the watch to buy at the lowest price possible.

The question naturally arises concerning the source of the profits of this class of expert risk takers; for it is obvious that without profits it could not long continue in business. One source, indeed, consists of the small losses incurred by the genuine dealers in produce when they hedge, the sums already described as resembling premiums for the insurance against heavier loss afforded by hedging transactions in general. As this is largely offset by similar gains on the part of the same dealers, it cannot be the real source from which the speculators obtain the greater part of their remuneration.

There are no adequate statistics of the ultimate sources from which the profits of the successful expert speculator are derived. The main contribution comes probably not from producer, consumer, or genuine dealer, but from the very many small speculators drawn from the outside public who, in the long run, always lose,² and from the occasional large speculator who happens to err and has to pay heavily in consequence. "The outside public, more especially in the United States, at times undoubtedly speculates heavily in cotton,"³ and invariably loses when it does so.

Some years ago it was estimated that 105,000,000 bales of cotton were sold annually on the New York Cotton Exchange.⁴ About the same time there was reason⁵ to suppose that approximately one-third of the cotton sales were then between member and member of the exchange; one-third between members of the exchange and outsiders, and one-third between one outsider and

¹ New York, 1909. Reprinted in Van Antwerp, *The Stock Exchange from Within*.

² "While it is true that the speculative dealings of these incompetent individuals do in a measure broaden the market, and assist in the distribution of the crop, still the injury inflicted on these individuals by their losses is out of all proportion to the service which their speculative dealings perform in the crop distribution." McHugh, *Modern Grain Exchanges*, pp. 22-3.

³ Wyse, "The Selling and Financing of the Cotton Crop," *Economic Journal*, vol. xxx, pp. 473-83.

⁴ United States House of Representatives, "Hearings before the Committee on Agriculture on Dealings in Futures," 61st Congress, 2nd Session, 1910.

⁵ See Hays, "Functions and Needs of our Great Markets," *Annals of the American Academy of Political and Social Science*, vol. xlv.

another outsider, the members in this last case acting as commission men only. Calculating merely the commission fees exacted by members from the outside public, if an equal division had been made among them the share of each would have been close on 16,000 dollars, a sum which alone would have paid all expenses and left a very fair profit besides. But, in addition, there were the profits on their dealings as principals with the outside public; and there was also some swallowing up of the smaller fry by the larger in the one-third between member and member.

Similar figures, but less reliable, have been obtained for the Chicago Board of Trade. There is evidence that the speculative dealing in wheat in that market by outsiders is exceedingly great, and that probably even larger sums than in New York find their way into the pockets of the successful Chicago expert.

In Liverpool, while speculation by the outside public is not unknown, commission, brokerage and profits taken from fellow members constitute the sources of remuneration for the members both of the Corn and the Cotton Exchange. The skill with which hedging can now be accomplished in the English grain trade makes large operations less risky and dangerous. There is, therefore, a tendency for the more expert speculators constantly to absorb their less successful rivals, a process which is resulting in the concentration of the trade in fewer and fewer hands.¹

The question of the legality of futures, especially when entered into by the expert speculator who does not intend to accept or tender delivery, has come up for discussion before the American courts on more occasions than one. It seems to be settled, and the decision is in agreement with English Common Law, that the sale of property to be delivered at some future time is entirely legal, even though the property in question is not at the time of sale in the possession of the seller. It, apparently, is equally well established that the transaction is a gambling one, and therefore void, if the two parties to such a contract of sale intended at the time of sale not to make or receive an actual delivery, but to settle by payment of differences on the future price of the property under discussion. To quote one judge, "The principle of the law is clear; the trouble arises when its application is attempted to a concrete case. Further, almost all discrepancy seems to arise through lack of a complete determination of the facts, or the unwillingness or inability of the judge to understand their real nature." As illustrating general everyday opinion, the point of view that really prevails and is acted on in business circles, a statement of the American Bureau of Corporations may be quoted. "The seller of such a contract,"

¹ See Rathbone, "Grain Futures, their Effects and Tendencies," *Transactions, Section F, British Association, 1896.*

says a Bureau report, "is absolutely liable for delivery, and if called upon for such a delivery by the buyer he can in no way avoid compliance with the terms of his contract, except under unusual conditions, especially provided for. . . . When the time for making delivery has expired, he cannot sell out his contract. This fact, and the fact that any buyer from the first to the last can, if he chooses, hold his contract and compel the seller to deliver actual cotton (grain, etc., as the case may be) when the date of maturity arrives, gives trading in futures a character entirely different, in principle at least, from that of a mere wager or bet." Again, in giving judgment in a case involving the Chicago Board of Trade in May 1905, Mr. Justice Holmes of the Supreme Court of the United States remarked that, "of course, in a modern market contracts are not confined to sales for immediate delivery. People will endeavour to forecast the future and to make agreements according to their prophecy. Speculation of this kind by competent men is the self-adjustment of society to the probable. Its value is well-known as a means of avoiding or mitigating catastrophes, equalising prices, and providing for periods of want. It is true that the success of the strong induces imitation by the weak, and that incompetent persons bring themselves to ruin by undertaking to speculate in their turn. But legislatures and courts generally have recognised that the natural evolutions of a complex society are to be touched only with a very cautious hand, and that such coarse attempts at a remedy for the waste incident to every social function as a simple prohibition and laws to stop its being are harmful and vain."

The Hughes Committee,¹ on the other hand, while admitting that speculation was a necessity and that the rules of all the exchanges endeavoured to suppress mere gambling, went on to point out that the technical delivery of produce was so easy that the practical effect of much speculation, in point of form legitimate, was not very different from that of gambling. Speculation having all the legal features of legitimate trading might in fact be mere wagering accompanied by most of the evil effects of gambling on a large scale. Therefore, the New York exchanges were urged to exercise more rigid supervision and to suppress inordinate speculation, but the Committee, on the whole, wisely subscribed to the views of Mr. Justice Holmes, and refrained from recommending any addition to the law of the State on this subject.

In England, popular prejudice against speculation and buying for deferred delivery found expression in restrictive legislation at quite an early date in the history of commerce. In the Plantagenet period, English merchants were forbidden to forestall wine in Gascony, or buy it up before the vintage. Neither were they allowed to charge high prices for the wine on the pretence that they

¹ See p. 103.

ran risks ;¹ and by statutes passed at the beginning of the reign of Edward VI. it was enacted that "whosoever shall buy corn or grain with intent to sell it again shall be reputed an unlawful engrosser and shall, for the first fault, suffer two months' imprisonment, and forfeit the value of the corn ; for the second, suffer six months' imprisonment, and forfeit double the value ; and for the third, be set in the pillory, and suffer imprisonment during the King's pleasure, and forfeit all his goods and chattels." As late as 1800 there was a conviction at Common Law for the crime of re-grading, one, Rusby, being found guilty of selling corn in the same market in which he had purchased it at an advance of two shillings a quarter. Lord Kenyon, Lord Chief Justice of England, at the end of the eighteenth century charged grand juries, by way of remedy for the prevailing scarcity, to present indictments under these long obsolete laws against re-grading and forestalling ; and he decided in 1800, in the Rusby case, that buying grain and flour and holding them for a rise for speculative purposes was against public policy, and immoral, and that therefore all such transactions were void. A decision like this, so subversive of ordinary trade practice, could not be allowed to stand for long ; and in due course it was reversed, on appeal. Since then there has been no real interference, either through legislation or judicial decision, with ordinary speculative dealing in England.

It is rather a remarkable fact that public opinion, both in England and America, for a time was prepared to regard as strictly honourable buying with a view to selling at a higher price, while condemning as ethically wrong the selling of something that the seller did not own. As a matter of fact, short-selling is in no way confined to the exchanges. All manufacturers, when not making to stock, sell goods before they produce them ; and a builder who enters into a contract to hand over a house at a certain date, makes his agreement even before he has bought the raw materials or engaged the labour. Business could not be carried on with any facility if contracts for future delivery were to be confined in every case to delivery of things already owned by the seller. There is no reason why cotton and wheat dealers should not make contracts for delivery at a date when they know they can fulfil their agreements by securing the amounts they require. The so-called "fictitious" wheat or cotton of the short-seller cannot possibly affect the market to the disadvantage of producer or consumer ; for the bear must always cover his sales, and in the end support the market by buying. Moreover, without short-selling, arbitrage transactions would be impossible ; and in this way again, the beneficent work of the expert speculator would be gravely hindered.

¹ See Cunningham, *English Industry and Commerce*, vol. I. p. 294.

Summing up, then, the services rendered by the class of expert speculators, at least seven may be distinguished as of paramount importance—

(1) By standing ready always to buy or to sell, it provides a continuous market with all the advantages resulting therefrom to both producer and consumer.

(2) By its watchfulness and its use of both official and other information it discounts the future, prevents panics, and spreads over a longer time the consequences of unexpected news, either good or bad.

(3) It regulates the rate at which the crop is consumed; and it helps by its action to reduce the cost of "carrying" produce.

(4) By arbitrage transactions it levels prices between different markets, thus ensuring that produce shall find its way to where it is required.

(5) It steadies prices through the constant contest between bulls and bears.

(6) It hastens what would otherwise be tedious by smoothing difficulties in the way of necessary movements of produce. It is a creator of what the theoretical economist calls "time utility."

(7) Most important of all, it is always ready to supply the other party required in a hedging transaction, whereby, contrary to other forms of insurance in which the risk is jointly shared by several classes, it concentrates upon itself all the main risks of changes in value, and incidentally renders it easier for bankers to finance the movements of produce at every stage from farmer to consumer.

CHAPTER IX

SOME EVILS AND ABUSES OF SPECULATION

ONE of the chief services rendered by expert speculation is the lessening of fluctuations, and the establishment of prices which correspond to the actual conditions of supply and demand all the world over. But the serious difficulty arises that, without the existence and continuance of marked fluctuations, the expert class would disappear ; for its profits depend on the occurrence of price changes, and diminish with every increase in the steadiness of the market. Each speculator at any particular moment is looking for a movement of price in one direction ; for it is on this, rather than on the final value of the commodity, that his success depends. It is only natural, therefore, to find forces present in the organised markets which sometimes offer serious resistance to the proper determination of price, and to expect that the perfection and the refinement of machinery in the exchanges are frequently abused by both members and outsiders who seek to make large profits by risking little.

If an expert speculator has sold short, it is to his interest that the price should go down ; if he has, on the other hand, bought, he looks for a rise in price. By some mysterious means, generally referred to as "manipulation," it is commonly thought that he can bring about a movement in the direction he desires. It cannot be denied that there are circumstances under which this is possible, and that occasionally prices can be markedly influenced by an individual or a group of individuals acting in concert ; but "manipulation," as an independent factor in price-making, is not important, and, as a rule, may in the long run be entirely disregarded.

A speculator in the produce markets can influence prices in two ways, by buying and selling the commodity himself, or by persuading others to buy or sell. A short-seller, by the act of selling, has already done all in his power to depress the price. If he desires it to fall still lower he must continue selling at a constantly diminishing price, or else induce others by some means or other to go on from where he stops. The first method requires very great capital. It is conceivable that in such a case enormous quantities, sufficient to reduce the price, may be unloaded on to

the market ; but the most serious difficulty then facing the speculator is the fact that, in order to cover, he must buy back an amount equal to his original sales. Thus the same influence is brought to bear in raising the price as was exercised in reducing it. Accordingly, the probability is that his average selling and purchasing prices will be about equal, and that nothing will be gained as a result of the whole operation. Similar remarks apply to an attempted raising of price by a bull speculator.

It is possible that the action of the operator may induce the outside public to follow his example, and that there may be an excited rush to sell on the part of those who have noticed the heavy sales. Then, by cool action and careful buying, the speculator may be enabled to cover at a good profit. This profit is all the greater if the bulls, too, are seized by the general panic, and unload their holdings at any price they can obtain ; but, sooner or later, the excitement spreads to short-sellers themselves, with the result that their efforts to cover often cause an upward movement as abnormal as the earlier decline. Yet sufficient capital and courage, combined with thorough knowledge of the market, sometimes enable a group or clique to make the covering purchases so quietly and unobtrusively that the price is only slightly raised ; but for complete success, some element of luck is needed, such as the appearance of supplies whose existence was not known previously.

Not only is it difficult to cover at a profit after a fall thus artificially created, and to liquidate after a rise similarly created, but it is also much more difficult to start such a movement. Full information is available concerning crop conditions ; and attempts to force the price in a direction not justified by probable supply and anticipated demand will at once be opposed by the sales or purchases of speculators ready to profit equally from a rising and from a falling market. In the long run they know that actual conditions determine the price ; and they do not readily let their judgment be overborne, because large transactions have taken place on one side or the other. Speculative judgment, of course, is not infallible,¹ but, on the whole, it succeeds in setting a price which, in the main, represents the real market opinion on the condition of demand and supply.

“ Manipulation ” is a vague term used in a wide and inclusive manner, possessing varying shades of meaning, and almost always conveying the idea of blame-worthiness deserving of censure. There is usually also an implication of artificiality and of skilful

¹ For a curious and unusual case of joint mistaken judgment reference may be made to a case which occurred in Chicago in connection with wheat in the crop year of 1891-92. Vast quantities were sold short by one speculator in the belief that the market's estimate of the crop was too low, and that the current price was too high. The speculator was right, and accordingly was able to buy back the wheat at a lower price than he sold it.

and ingenious management. In its most common use it has reference to a speculator, or to a group of speculators who buy or sell produce, in such a way as to give outsiders the impression that such buying or selling is the result of natural forces.¹ Hence the term includes excessive speculation, the spreading of false rumours, the working of syndicates to increase or depress prices, "wash sales," "matched orders," and "corners."

So-called excessive speculation on the produce exchanges may be nothing more than a sign of exceptional activity in general trade; but the fact that dealings are in excess of the average may point to a successful resistance to an attempt at manipulation by the saner elements in the market. It is not always correct, therefore, to ascribe to manipulation every sudden increase in dealings for which no reason can be immediately assigned.

The creating of false opinions is one of the chief means of manipulation. A group may lead the market generally to believe that they are expecting a fall, when really they are buying quietly and secretly to a much larger extent than they are selling; and, conversely, they may buy openly when really they are selling secretly for a fall. The direct publication of false news is forbidden on all exchanges and avoided by the shrewder manipulators. Moreover, it is an offence against the law in several States in America,² where, on the whole, this evil has been greatest. But there are many tricks by which false suggestions can be made, some of which seem so little deserving of censure that, unless the moral tone in a market is high, it is easy for members to condone them and even to practise them. One example will suffice. It is sometimes possible to engineer a rise in price on an American wheat exchange by cabling an order for the purchase of a very large quantity in Liverpool on a certain morning, and thus raising the price there temporarily that day. When the American market opens for business a few hours later it begins under the impression that the English have information of some scarcity in supply compared with demand not accessible for the moment to itself. This enables the speculator who knows the real facts to act in such a manner as to make a profit in America larger than the loss he will incur in selling out later in Liverpool. It is very difficult

¹ A definition more applicable, perhaps, to stock exchanges and one due to counsel to the New York Stock Exchange is: "The giving by the same man or group of men of contemporaneous, or practically contemporaneous, orders to various brokers to buy, and to other brokers to sell, the same security at the market price whatever it may be, from time to time, for the purpose of realising a speculative profit, in some cases from an expected or intended fall in the price, and in other cases from an expected or intended rise in the price, the vice of such a system of orders being that their execution may not involve a change of ownership." For the purposes of the produce exchanges this is rather narrow, applying, as it does, to the case of "matched orders" only.

² *E.g.* California and Ohio.

to suppress misleading rumours, which may have a grain of truth in them, but the most surprising aspect of this kind of manipulation is the haste with which speculators rush to extremes, and leave aside all judgment, upon the circulation of any plausible story. The very great body of information collected and published, both by governments and private agencies, and the official collections of the exchanges themselves, ought to give assurance to the saner members, and cause them to restrain their impetuosity.

Syndicates or pools are often formed by a number of speculators uniting or joining their interests for the purpose of buying or selling, and thus driving up or down the market price of some selected commodity on an exchange. Profits are divided and losses shared equally. One individual or firm is given the sole authority to buy or sell on behalf of the pool. No member of the pool can buy or sell any of the selected commodity on his own account as long as the pool lasts, though, of course, he may deal quite freely in other produce. Attempts to evade this rule by members who see an opportunity for additional profit usually bring about a collapse when the pool is doing well. If it loses, it breaks up quickly in consequence of the withdrawal of the financially weaker members. There is nothing inherently wrong in this practice; but it is open to the criticism of encouraging rather reckless plunging on the part of the agent of the pool, who is prepared to run greater risks when he has a number of other persons with whom to share possible losses. Moreover, the moral conscience of a firm or group of this kind is that of its least desirable member; and many speculators are prepared as members of a pool to take part in acts they would shrink from as individual business men.

Manipulation, by means of "wash sales," occurs from time to time on some of the American produce exchanges. These are fictitious transactions, in which one broker arranges to sell to another at an artificially high price. Other speculators, being unaware of the collusion between the two, are misled into thinking that there is real reason for the advance in price. As the transaction, to serve its purpose, must take place on the floor of the exchange and the price be quoted officially, the risk of detection is great. All the exchanges have strict rules against this kind of conduct, and the penalty in every case is immediate expulsion.

Closely allied to wash sales are "matched orders," which are much more common, and in skilful hands can be made to attain the same ends. A speculator desiring to advance or depress the market price gives orders to different brokers, some of whom he instructs to buy and others to sell. He names the price limit in each case. The market is in this way stirred to activity by the simultaneous orders to buy and to sell; and the official list appears

with the price the speculator has determined on beforehand. In most cases the brokers employed are ignorant of the object in view, and they act in perfect good faith. The chances are that the two sets will make their transactions together, and the greater the number of cases in which this happens the greater the success of the speculator in attaining his object. But there is the grave disadvantage to him that he may have to take over a large amount of produce, if he is endeavouring to manipulate a rise; for the advancing prices will cause the farmers and the other holders to sell enormously, and the innocent buying brokers may purchase in good faith from the farmers' agents rather than from the selling brokers instructed by the speculator. These purchases will have to be paid for at the high price, a fact which will materially reduce the profits of the speculator, even if it does not bring about his ruin. Defence of this practice is sometimes attempted on the grounds that a "constant liquid market" is maintained; but there can be no adequate justification of any action that brings about an artificial increase or decrease of price, notwithstanding the counteracting advantages claimed for it.

Probably no form of manipulation calls forth more condemnation from the general public than the "corner." This is due partly to the natural feeling entertained against any combination which has the effect of raising prices, and partly to pity for the plight of the victims who are caught, and who have to accept unconditionally the terms laid down by their captors. Notwithstanding the great volume of business done, it is only in extremely rare instances that the speculators who are short when a given delivery month arrives fail to have enough actual produce at their command to fulfil their contracts. But it may happen that the buyers have bought up more produce than the short-sellers can find to deliver. In this case a corner is created, and the buyers are said to have cornered the market. A corner, then, is the result of an oversold market bringing about a situation in which the sellers are unable to fulfil their contracts and have to buy back from those to whom they have contracted to deliver, or, in other words, settle their contracts by paying over to those who have cornered the market the difference between the price they have contracted to sell for and the price which the manipulators have succeeded in bringing about. It is evident that in a successful corner there is a control amounting to monopoly on the part of one set of speculators, and that, therefore, the price can be put up to any extent. Moreover, this kind of monopoly is much more effective than the ordinary monopoly sometimes obtained by producers or sellers in the usual course of business. In the latter case, the consumer is not compelled to purchase; but the short-selling speculator must deliver within a certain period or submit to ruin.

The usual method of bringing about a corner is for a syndicate to buy all the offerings of the short-sellers, and to encourage the latter to go on selling until their sales exceed the amount of the commodity that is available for delivery. The syndicate then demands delivery in due course, refusing to settle except on its own terms. As a rule, nothing is gained by absolutely ruining the shorts. Therefore, the terms arranged are in the nature of a compromise, depending largely upon the financial standing of the victims. The latter are "squeezed" to the full extent to which it is considered judicious.

An actual corner of spot wheat or spot cotton is practically impossible to engineer because of the vastness of the crops and the very great amount of capital needed. A speculative corner, however, that is, one occurring when futures maturing in a particular month are bought up by a group who suddenly threaten to require delivery, is quite possible. May wheat and August cotton have been cornered at times with some success, but the difficulties of getting control of the whole supply, even in a single market for a few days, are enormous. If the price rises, farmers and dealers have a wonderful way of sending forward supplies, the existence of which has hitherto been unknown to all but themselves; and supplies from other markets can also be rushed in for delivery. To maintain the corner, all these must be purchased; otherwise, they are available for the shorts to buy and to use for delivery. The cornering group or syndicate, therefore, assumes great risks, and must discount in advance very heavily any gain likely to result from the transaction. When there is success, a temporary squeeze results, the price is driven up for the last few days of the delivery month, and the shorts settle at this advanced quotation. At the beginning of the following month prices drop again to the normal level, and, except for the inconvenience suffered by those who had legitimate hedging contracts to make, no lasting harm ensues.

Since the possibility of engineering a successful corner depends upon the facility with which the buying group of speculators can acquire control over available supplies, it follows that they are helped in their operations by any natural or artificial limitation of supply. Therefore, corners in wheat cannot easily be contrived in July or September, or in the last few months of the year, because large quantities of the new crop are being sent forward to market at that time. In the case of the United States wheat markets May futures offer the best opportunity; although in those markets (Duluth and Minneapolis, for instance) where only northern spring wheat is deliverable on futures contracts, corners are possible in July, because the new crop does not begin to reach the markets until August.

Artificial limitation of supply may be the result (not perhaps

intended) of rules having for their main object the strict prescription of the kind of produce deliverable on futures contracts. On the Chicago Board of Trade, for instance, a relatively limited number of elevators and warehouses is designated in which, exclusively, produce is deliverable in fulfilment of contracts, although similar produce may be in existence and available elsewhere. The temptation to manipulate the market offered by such a regulation is considerable; and the frequent disturbances caused by both successful and unsuccessful efforts to corner supplies have, in the opinion of competent observers,¹ prevented Chicago from maintaining the pre-eminent position it used to occupy as the world's greatest wheat centre.

7 Narrowness of range tenderable in fulfilment of futures may also help in the cornering of supplies; for the smaller the number of specific grades permitted as legal tender in place of the standard or contract grade the easier it is for a group to arrange to demand delivery at a given period and to ensure that the short-sellers shall not have access to sufficient supplies.² Consequently, there has been a tendency to enlarge the range that may be offered on payment of discount or premium for quality, notwithstanding the greater inconvenience caused thereby to the wheat millers or the cotton spinners. Further, it has been recommended that, in the case of corners obviously arising out of the narrowness of the range permitted as legal tender, exchange committees should be empowered to relax, temporarily, the rules for delivery, and that this relaxation should be granted, even if there is only a slight squeeze of short-sellers, when the price at the time of settlement is markedly above that of other grades, and that of the same grade in the recent past and not too distant future. The desirability of such concessions as a means of preventing and discouraging manipulation is not open to doubt.

A corner based on a true estimate of the future price is invariably a source of great profit to the speculator engineering it. Such an example is that of the Leiter corner in wheat in 1897 in Chicago. Leiter thought that the current estimates of the 1897 crop were too high, and the price consequently too low. He had large funds at his disposal, and, forming a clique to help him, he bought enormous quantities. Wheat not under his control he prevented from reaching Chicago by all kinds of skilful devices. Many who had sold to him and who had failed to deliver had to pay heavily for non-fulfilment of their contracts. But the price

¹ See Hubback, "Some Aspects of International Wheat Trade," *Economic Journal*, vol. xxi. p. 128.

² Probably one of the reasons for the failure to establish a futures market in wheat in London was the narrowness of grade permitted as legal tender. It was sought to restrict it to No. 1 Manitoba, with the result that there were constant squeezes and minor corners, which rendered the market quite unreliable for the purposes of legitimate hedging.

did not fall abruptly from the settlement price after the corner matured; for he was correct in his anticipation that the shortness of crop justified a higher price than that current before the corner. In the case of a corner based on a mistaken estimate of the future price great fluctuations prevail, the corner is always broken, and the speculator is ruined; for the price falls lower than it was before the attempt to raise it was made. A second attempt by Leiter in 1902 was a failure. This time he was wrong in his estimate. Moreover, his previous success had made him rash, and he overlooked certain sources of supply from which his debtors were enabled to acquire sufficient quantities to liquidate their contracts.

A good example of a speculative corner in cotton on a large scale is that of Patten, Hayne, Scales and Brown in 1910, in New York and elsewhere, when August futures were driven up to five times their usual price. August, being the last month of the crop year, affords the corner engineers in cotton their best opportunity. The operating clique on this occasion had hundreds of thousands of bales delivered to them, but they were enabled to sell again at a profit. The disturbance caused by this incident was confined to a single month; for the arrival of the new season's crop the following month restored the market to its normal course.

An interesting example of a corner successful, but in the long run by no means profitable to the operators, is that which took place in iron warrants in the north of England in 1905. The practice had grown up of buying and selling these warrants on the metal exchanges for forward delivery, with the result that speculation was facilitated, and dealings were very often concluded in the expectation that warrants would be available when the time for their delivery arrived.

In October 1904 a leading iron merchant came to the conclusion that America would require iron from England in the following spring. Therefore, in league with some others who shared his views, he began to buy up spot iron and warrants with the object of profiting by the higher prices he had forecasted. He was successful in obtaining large holdings before prices began to rise, even though the increase in the price of warrants caused makers to put their iron into store and thus provide the basis whereby the redemption of warrants might be rendered easier. But the selling of warrants continued until it became obvious that there was considerable over-selling by the bears. It was at this stage that a syndicate was formed to corner the bears, but the latter were not at first alarmed, and over-selling still continued. The anticipated American demand did not take place, and it seemed as if the bears might be correct after all. The bulls, however, decided to bring the corner to a termination, and refused, on April 19, to buy iron for delivery at a month. That meant that all existing warrants would have to be redeemed on or before

May 19. Iron, therefore, was poured into store, but not enough to back all the warrants in circulation. When settlement took place, on May 19, the bull clique had to take over 740,000 tons, of which 440,000 tons were actual iron in store. The remaining 300,000 tons constituted the amount oversold by the bears. On this 300,000 tons they merely received differences, very large sums changing hands in consequence. They had now to carry the whole of the 440,000 tons in a market in which prices were falling; and, getting no help from the bears whom they had squeezed, they had to sacrifice part of their profits in order to get rid of their stocks. Ultimately they succeeded, but the net result to them was nothing. Practically no profit was left to the clique, but considerable disturbance of legitimate trade had been occasioned by its manipulations.¹

An example of a partial corner or squeeze, due to shortness of supply artificially created by rule rather than caused by actual scarcity of wheat, is that which took place in Chicago at the close of May 1921. The elevators in Chicago recognised by the Board of Trade were comparatively short of wheat. "On May 25, Chicago May wheat sold up to \$1.85, a price 24 c. above the low point of the previous day. From \$1.85 the price broke rapidly and at one time was 19½ c. below the high point. Wheat was shipped from Omaha and Kansas City to Chicago to apply on short sales of May in the latter market. Several hundred cars were expected to reach Chicago by May 31. The rules of the Board of Trade provide that delivery may be made in cars on track the last three business days of a contract month. The rules also provide that in the event the shorts cannot deliver grain on their commitments, or if they do not cover or close their contracts by a purchase in the futures market, then they must settle at a price² arrived at by a committee of the board."³ May wheat "went out" at \$1.87½ per bushel (*i.e.* the final price of May futures on 31st was \$1.87½). The cash wheat market was disturbed and unsettled (round about \$1.66) and after May closed the price dropped. On May 31 July futures were at \$1.28½ per bushel, and trading in September futures began on June 4 at 1.22½ after the market recovered its even tone once more.

The defence that manipulating a corner instead of restraining competition actually tends to increase it, was pleaded by the defendants in a case that came before the American courts in 1912 and 1913. The prosecution took place under the anti-trust laws which sought to prohibit any action that was calculated to

¹ See Macrosty, "Prices and Speculation in the Iron Market," *Economic Journal*, vol. xv. pp. 340-60; and Hood, *Iron*.

² In addition, liquidated damages have to be paid, amounting to not less than 5 or more than 10 per cent. of the total value of the contract.

³ *Market Reporter*, June 11, 1921.

prevent fair competition in commodities which were the subject of interstate trade. Cotton being one such commodity, an attempted corner on the New York Cotton Exchange, therefore, was conceivably illegal. The Supreme Court was impressed by some of the arguments advanced before it, that a corner actually may increase competition instead of preventing it; but it very properly decided that, though this was possible at the beginning of the operation, the net result in the long run was to prevent competition. Therefore, attempts to corner cotton were in restraint of trade and came within the provisions of the anti-trust Acts.

When corners are attempted the most effective reply on the part of the intended victims is counter-manipulation. Therefore, the more active the market the more possible it is for short-sellers to counter their opponents. They may break the corner by continuing to sell short, thus forcing the cornerers to take not only the whole of the real supply but the "fictitious" supply as well. This is evidently a highly risky course for the shorts, but if their capital and nerve are greater than those of the bulls they may well frighten the latter into surrender. Caution, however, and adequate watchfulness on the part of short-sellers will always prevent them getting caught in an oversold market.

The prevention of corners is on the whole best accomplished by rules prescribing generous treatment in the case of default on the part of short-sellers. This is the method adopted by the Liverpool Corn Trade Association, for example. The rules of that body do not permit anything in the nature of the exaction of a penalty for default unless it is obviously deliberate or intended, and of that the committee of the association is the sole judge. Therefore, if a clique succeeds in driving up one month's futures to an unreasonable height, or corners all the cargoes arriving during a certain period, it is not permitted to profit unreasonably by that action. When the intended victims default, settlement is ordered at a price close to or coincident with the prevailing spot price. Moreover, in contracts on c.i.f. terms, the condition permitting invoicing back gives adequate protection to an innocently defaulting seller¹ in cases in which buyers seek to squeeze him inordinately.

Corners are not necessarily a result of futures dealing. They are in reality more common in transactions outside the exchanges

¹ "If the seller shall make default in shipping or declaring shipment, or in tendering the documents required by this contract, the contract shall be closed by invoicing back the goods contracted for at such price as the arbitrators shall determine, and this shall apply whether the price so determined be higher or lower than the contract price." The buyer in such a contract may often, on payment of a higher price, have this clause struck out. Thus, any loss resulting from inability to obtain wheat on the contract can be provided against; for in this case the seller then becomes liable for damage suffered by the buyer owing to the default.

than within them. Moreover, in the case of wheat and cotton the fact that, at certain periods of the year, only small amounts are available would still render cornering possible apart from any contracts for future delivery. It may well be doubted whether the existing risk of occasional or partial corners on the exchanges is greater than an actual monopoly of wheat under conditions in which contracts for future delivery would not be possible.

An indirect result of the speculative facilities afforded by the exchanges is the so-called "bucket-shop."¹ This term is applied where gambling on prices takes place by means of fictitious sales and purchases. Bucket-shops are not uncommon in England in connection with the stock markets; but they scarcely exist in connection with speculation in produce. In the United States they exist in the case of both stocks and produce, but they do not always speculate in the same field. Circumstances render their operations more profitable in stocks at one time and in wheat or cotton at another time.

The distinctive features of this kind of speculation consist in the fact that produce is not usually bought or sold for the customer, and that selling or buying does not take place with a view to delivery. The method of working is well explained in the first section of a law of the State of Wisconsin prohibiting this type of trading. "A bucket-shop, within the meaning of this Act, is defined to be an office, store, or other place wherein the proprietor or keeper thereof, either in his own or its own behalf, or as the agent or correspondent of any other person, corporation, association or co-partnership, within or without the State, conducts the business of making or offering to make contracts, agreements, trades, or transactions respecting the purchase or sale, or purchase and sale of any stocks, grain, provisions, or other commodity, or personal property, wherein both parties thereto, or said proprietor or keeper, contemplate or intend that such contracts, agreements,

¹ According to the *Oxford Dictionary*, which quotes the *Leeds Mercury* of a date in 1886 as its authority, the term was invented in Chicago. In order to catch men of small means, who could not afford to deal in futures proper, what was called the Open Board of Trade started business in an alley under the regular Board of Trade rooms. Access to the Board of Trade proper was by means of a lift, and when legitimate trade was slack and members tended to gather in the alley below, the lift used to be sent down to "collect a bucketful" from the shop downstairs. Hence the name "bucket-shop" came to be applied to all grain gambling institutions, and was in due course widened to embrace stock gambling places as well.

On the other hand, American authorities assert that the term came from England soon after 1870, and they trace its origin back to the custom in London where gangs of hooligans used to drain barrels which had been thrown out of the public-houses. When the roughs had collected enough of this wretched liquor, and a few ends of cigars as well, they used to withdraw to a hovel and consume them. These retreats were called bucket-shops, and the name came to be used by the members of the London Stock Exchange for the outside agencies that sought to rival them in business.

trades or transactions shall be, or may be, closed, adjusted or settled according to or upon, the basis of the public market quotations of prices made on any Board of Trade or Exchange, upon which the commodities or securities referred to in such contracts, etc., are dealt in, and without a *bonâ fide* transaction on such Board of Trade or Exchange; or wherein both parties . . . shall contemplate or intend that such contracts, etc., shall be or may be deemed closed or terminated when the public market quotations or prices made on such Board of Trade or Exchange for the articles or securities, etc., shall reach a certain figure; and also any office, store or other place where the keeper thereof, either in his, or its own behalf, therein makes or offers to make with others contracts, etc., for the purchase or sale of any such commodity wherein the parties do not contemplate the actual or *bonâ fide* receipt or delivery of such property, but do contemplate a settlement thereof based upon differences in the prices at which said property is, or is claimed to be, bought and sold."

A bucket-shop is therefore a mere gambling institution in which the customer bets against the proprietor on the price of some article or of produce. Dealings are simply in profits and losses, not in produce itself, prices being settled by means of quotations secured from the legitimate exchanges. As the majority of bucket-shops advertise that stock can be actually delivered, the general public often conclude that there is no distinction between dealings there and dealings in differences inside the exchanges. To this the reply may be made that all dealings on the exchanges are always actual transactions, even though offset by other real transactions, and that every one of them exercises its influence on price, while no bucket-shop deal can affect price to the slightest degree.

Bucket-shops flourish best when prices are falling; for the majority of their customers bet that prices will rise. Hence it is to their interest that prices should always tend to fall; and it is not uncommon, especially in the stock markets, for several to unite and employ a broker on a legitimate exchange to sell a large amount short so as to depress the market and wipe out the small margins they keep on deposit from their customers.

It is evident, therefore, that for the protection of genuine trading, exchanges and governments must wage relentless war on these unscrupulous concerns. This is done by dealing drastically with any broker suspected of lending himself to the furtherance of the plans of any bucket-shop, by preventing quotations reaching them, and by regarding their advertisements as incitements to illegal action. Most States of the American Union¹ have laws directed against them, the test imposed being

¹ The State of West Virginia has, or had, a law licensing and permitting the operations of bucket-shops.

the intention of one or both parties to the transaction to settle merely by payment of differences instead of actually to receive or deliver produce. Some require this intention on the part of one side only, some on the part of both. The Federal Government can intervene by prosecution for the misuse of the mails for the purposes of fraud; and in this way it has succeeded in suppressing great numbers of bucket-shops in recent years.

The comparatively small extent of this evil in the United Kingdom has rendered legislation unnecessary in this connection.

Reference has already been made to privileges¹ and to the services they can render in the course of legitimate business. They are, however, now forbidden on most exchanges on account of the ease with which they lend themselves to the attempts of the inexperienced to gamble. Only a small capital, the price of a put or of a call, is needed for a deal, in contrast with the margin of 10 per cent. usually required in the case of an ordinary transaction in futures.²

Organised speculation on the exchanges, constructive speculation, has had to withstand the most damaging attacks directed against it from those who seek to make a distinction between what they term *bonâ fide* trading and trading for differences. The former is acknowledged to be necessary and legitimate; the latter is supposed to be "illegitimate." According to the Hughes Committee, the rules of all exchanges "make so easy a technical delivery of the property contracted for, that the practical effect of much speculation, in point of form legitimate, is not greatly different from that of gambling. Contracts to buy may be privately offset by contracts to sell. The offsetting may be done, in a systematic way, by clearing houses or by ring settlements. Where deliveries are actually made property may be temporarily borrowed³ for the purpose. In these ways, speculation which has the legal traits of legitimate dealing may go on almost as freely as wagering, and may have most of the pecuniary and immoral effects of gambling on a large scale."

Now it would be exceedingly difficult to discriminate between these two classes of transactions on any exchange. The form of contract is the same in both cases, and the settlement by difference is merely a matter of convenience after the contract is made. Practically all futures contracts are so settled. To forbid such transactions is to abolish speculation altogether. They are *bonâ fide* transactions helping to make prices, not mere adjuncts to real speculation and gambling. Their nature is in no way altered

¹ See pp. 45 *sqq.*

² Trading in wheat privileges is one of the features of the Milwaukee Chamber of Commerce, but the chief market for speculation in privileges—the London Stock Exchange—is not a produce market at all.

³ This applies to the American stock exchanges rather than to the produce markets.

by the manner of their termination ; and the continuity of the market is largely determined by their possibility.

On the other hand, it cannot be denied that there is great evil in the participation in the market by a large outside public, who assume unnecessary risks and simply bet on fluctuations. These amateurs, who have neither capital nor the mental equipment necessary to form a real opinion concerning the course of prices in the market, are attracted by the possibilities of making great and speedy gains from the fluctuations in prices. Their action is, in fact, the merest gambling and leads to unsteadiness of the market in times of excitement ; for the larger the number of such persons involved, the more unreasoning is their action when their fortunes are threatened, and the greater the tendency for them all to act precipitately in the same wrong way. Moreover, it is almost certain that most of them have no reserves from which they may increase their margins if required. Hence, any sudden movement in price threatens their solvency, and there is a rush to cover or to liquidate, which causes prices either to rise rapidly or to fall suddenly under the fear of panic.

It is possible that this evil of speculation on the part of foolish outsiders can never be entirely abolished, but it might be greatly lessened by requiring a higher original margin at the outset. Instead of 5 or 10 per cent., as is the figure on many exchanges (it is nothing on some exchanges), it might be increased to 25 or 33½ per cent., with the result that the number of bets possible to a person determined on gambling would be considerably reduced in number. As a matter of fact, in recent years there has been a diminution of the evil without drastic action of the kind suggested. This has been particularly so in the smaller wheat exchanges in the United States, and is ascribed to the growing awakenings of conscience on the part of brokers and grain dealers who have come to refuse altogether any speculative orders from outsiders whom they do not regard as properly qualified to assume the risks involved.

Yet, from another point of view, it is difficult to see how the speculative market can be maintained for the legitimate traders without the admission of the foolish outsider also, in quite considerable numbers. As has been pointed out already, it is from this latter class that the expert speculator in the long run derives the main portion of his remuneration for the valuable services he renders. It would not be possible to bring about a condition of affairs under which expert speculators of great experience and knowledge carefully investigated all the circumstances bearing on prices and then alone worked out the consequences and arrived at a scientifically determined market price. Desirable as such a state of things may be, the fact remains that the experts are not prepared to act in this way. It simply would not afford them a

living; for it would merely re-distribute their individual capitals among their number without any increase in the way of profit. For their full activity, an adequate supply of outside lambs to fleece is a first necessity. Moreover, without the constant supply of fresh speculators always coming forward, the market would become too narrow and too restricted for the possibility of advantageous hedging by the genuine dealer in produce.

There is thus a conflict between moral and economic ideals in this connection. The economic advantages of a speculative market, wide in extent and active in being, cannot be doubted; but, on the other hand, the moral evils accompanying the inducement to gambling, brought about by the very existence of this market cannot be denied. The advantages and disadvantages cannot be measured by any common standard, and every community must decide for itself at what point the evils of speculation are outweighed by the advantages attendant on a well-organised and speculatively active produce market.

Attempts by means of legislation to deal with the evils of speculation, while not unknown in England¹ and in Germany,² have been most numerous in the United States.

They may be classified in two divisions: Acts and proposals of the State legislatures affecting speculative markets; and attempts at the Federal regulation of speculation. The adjective "anti-option" is applied to these Acts, proposals and resolutions, because they usually take the form of bills for the taxation of options and futures. By option the framers mean privileges (puts and calls).

This legislation is not confined to any part of the United States, but has been tried or experimented with in almost every State of the Union. The history of such legislation, as well as its interpretation by the courts of the various States, shows that the older States of longer commercial standing, having passed anti-option and anti-short-selling laws, discovered their undesirability and uselessness, and repealed them in the very early days of modern speculative activity. The newer States and the more purely agricultural States, especially in the south and west, have passed the most stringent laws of all, devoting special attention to short-selling and ignoring the differences between properly organised legitimate exchanges and mere gambling devices such as bucket-shops. It is the ineffectiveness of these laws that has led to determined attempts on the part of the representatives of those States in Congress to secure by Federal legislation what they have failed to accomplish by State legislation.

It would be tedious and unprofitable to discuss in detail the

¹ E.g. Barnard's Act, 1733; Leeman's Act, 1867, both, however, referring to stock exchange transactions.

² E.g. the *Börsengesetz* of 1896, for which see Chapter following.

various acts of the several States. A few examples, therefore, typical of the general body, will suffice.

Illinois, quite early in its history, decreed that "whoever contracts to have or give himself or another the option to sell or buy at a future time any grain or other commodity, stock of any railroad or other company, or gold, or forestalls the market by spreading false rumours to influence the price of commodities therein, or corners the market, or attempts to do so, in relation to any of such commodities, shall be fined not less than \$10, nor more than \$1,000, or confined in the county jail not exceeding one year, or both; and all contracts made in violation of this section shall be considered gambling contracts and shall be void." This law has had very little effect. Options are traded in at Chicago to quite an appreciable extent, while false rumours and corners are by no means uncommon.

It was in the early 'eighties that legislative activity was at its height, and that attempts were made continually to declare futures illegal if one or other of both parties had no intention actually to receive or to deliver the article sold. In 1890 Massachusetts decreed that whoever contracted to buy or sell upon margins, without intent actually to receive or deliver, might sue for any payment made. In 1905 the legislatures were beginning to learn to discriminate between bucket-shops and legitimate markets; and in 1909 a group of States passed laws of which the following provisions, paraphrased from the statutes of Kansas, are representative:—

Maintaining or aiding in maintaining a bucket-shop is a felony, a bucket-shop being defined much as in the Wisconsin law quoted above. Telegraph and telephone companies and their employees who permit the transmission or the making of any such sales over their lines are guilty of felony, as are also persons knowingly allowing use of their buildings for such purpose. The mere offering to make such purchases or sales constitutes a felony. Every broker or commission merchant is required to furnish a written statement to his principal or customer of the name of the other parties to the contract, the time of sale or purchase, the place of sale or purchase, and the price at which the transaction took place.

About the same time Arizona prohibited hedging contracts, with, however, a modifying clause to the effect that *bond fide* dealings on boards of trade or exchanges were not to be prevented. The cotton States of Georgia, Louisiana and Alabama sought to enforce penalties for dealing in futures, and California, in 1879 and 1908, attempted, by means of provisions in its constitution, to prevent speculation in stocks.

In the bills submitted to Congress for the Federal regulation of speculation the attack at first (in 1890 and 1892) was made directly upon the short-seller. It was the habitual and

professional selling of what was not in the possession of the seller that was singled out as the evil requiring suppression. In the next attempt, in 1894, the line of attack was different. The bill seemed to permit short-selling, but insisted on what was termed "absolute sale and actual delivery." It was not certain if this merely prohibited off-setting and ringing out by means of clearing houses, or was only another method of stopping short-selling under every circumstance; but fortunately the attempt to compel a return to the cumbrous methods of cash payments and physical delivery failed, and it was not until the turmoil, following on the 1903 panic, that further efforts were made. The bills promoted then sought to "define options and futures, to make such contracts illegal, and to provide for violation of the law." None of these met with any success.

It was in the Congress that met immediately after the crisis of 1907 that there appeared the greatest volume of bills, attacking, condemning, and prohibiting futures and options. Margins also were added to the proscribed list, and one bill went so far as to seek to prevent any one "gaining or losing sums of money called margins from the fluctuations in value of the products of the soil"—a provision which could be interpreted as directed against profit in any trade at all in raw materials. No less than twenty such bills were submitted, but none was debated or voted on. In the next Congress, thirteen, and in the first session of the following Congress (1911), eight bills came forward, but none met with success. They were all similar to one another, being modelled on previously rejected bills or on Acts of State legislatures.

It was not until 1915 that a measure of success was obtained in the passing of the Cotton Futures Act of ¹ that year, which confers certain powers on the Federal Department of Agriculture in respect of the cotton exchanges. This success has been followed up in 1921 by the Future Trading Act (the Capper-Tincher Act) ² which imposes the rather prohibitive tax of 20 cents per bushel on privileges entered into anywhere in the United States, and a similar tax on futures except in the case of hedging transactions on exchanges or boards of trade. These latter institutions must fulfil certain conditions laid down in the Act; and their members must keep all memoranda of such transactions available for inspection by a representative of the United States Department of Agriculture or of the United States Department of Justice at any time within a period of three years from the date of conclusion of the agreements.³

¹ Already discussed in Chap. III.

² For full text of this important Act, see Appendix I.

³ The Egyptian Government, towards the close of 1921, had under consideration the passing of an Act regulating business in the Alexandria Cotton Market. Legislation similar to the two American Acts was contemplated.

The numerous resolutions and Bills concerning speculation in produce submitted to Congress in the period since 1894 have given rise to many official inquiries and reports, of which the following are the most informing :—

(1) Special Report on Speculation and Prices of Wheat and Cotton. Report of the U.S. Industrial Commission, 1901, vol. vi.

(2) U.S. Commissioner of Corporations, Report of, on Cotton Exchanges. Washington, 1909.

(3) U.S. House of Representatives. Hearings before the Committee on Agriculture on Dealing in Futures, 61st Congress, 2nd Session, 1910.

(4) U.S. House of Representatives, Hearings before the Committee on Rules on Grain Exchanges, 63rd Congress, 2nd Session, 1914.

(5) Report of the Hughes' Committee on speculation in Securities and Commodities, 1909. (This was a New York State Committee.)

It is unlikely that attempts to suppress the abuses of speculation by means of legislative action can ever meet with unqualified success. Enduring reform can only come with the gradual growth of an enlightened commercial public and the adoption of the highest standards of social ethics by those who manage the large businesses in the various countries of the world. The recognition by merchants and dealers that they stand in a high fiduciary relation to the community, and that the latter will always adequately remunerate them for services rendered, would soon bring about the disappearance of those sharp practices that still survive in some organised markets and exchanges.

CHAPTER X

THE INFLUENCE OF SPECULATION UPON PRICES

REASONS have already been given in support of the assertion that short-selling steadies prices, and that active legitimate speculation, by concentrating risks on experts, tends to narrow the difference between the price paid by the consumer and that received by the producer.

It is proposed now to discuss in greater detail the views of farmers, statisticians, and others, on these points, and to examine in a general way the manner in which speculation influences the prices of those two commodities, cotton and wheat, in which it is most widely employed, and in which it can work out its effects with the smallest interference from outside causes.

It is often asserted that the prices fixed in the speculative markets are unreal because they are determined "regardless of the law of supply and demand." This statement probably means nothing more than that the price is not in accordance with some preconceived idea of what it ought to be. In other words, value is considered as something objective, something that can be discovered by certain physical tests independent of the feelings of individuals. It is thought that it can be determined at any moment by examining, on the one hand, the total physical supply of the commodity, which is regarded as easily ascertainable, and on the other, a very definite demand on the part of consumers of the commodity, and that these two items can be balanced one against the other, no regard being paid to the obvious fact that "effective" demand and "effective" supply, the really important elements, vary according to the changing opinions of individuals concerning the prospect in the future and with the proposed present price itself.

The fact is that prices in the organised markets are determined by the existing supply and demand, but that the existing supply and demand, effective supply and demand, are both speculative. They are dependent on conditions in other markets, and on judgments concerning the future. Hence, future supply and demand, by their influence over present speculative supply and demand,

affect prices; but this is the only way in which it is in their power to do so.

The speculative demand and speculative supply find expression in offers to buy and to sell, and are, therefore, quite as genuine as ordinary demand and supply. The goods dealt in may be either goods for immediate delivery or for future delivery; and the offers on either side may be regarded as estimates of what the future market is likely to be. There is, therefore, a present market for the future goods which will then be in existence. The speculator deals in estimates of future values. This is where the class of critics already referred to goes wrong. They fail to recognise that one main service of speculation consists in the influence it exercises over the determination of prices throughout a range of time in the future. It is not the present price so much as the future price over which it seeks control.

About the years 1894 and 1895, when prices were considerably depressed, the question of the influence of the active operation of a market in futures was widely discussed in England, America, and the Continent. Anti-option bills were promoted in more than one American State; the so-called Exchanges Act was passed in 1896, in Germany, to regulate speculation on the exchanges there; and a committee of the section of Economic Science and Statistics of the British Association reported in 1900 on the effects of dealings in futures upon prices, with special reference to wheat.¹ The particular point then under discussion was the assertion that futures tended to depress prices. This was a natural supposition in view of the prevailing low prices at that time, but the exactly opposite opinion has been maintained in times of high and rising prices,² with as little justification in the one case as in the other.

Taking first the assertion that dealing in futures depresses prices, with consequent loss to the producers, the argument runs that short-selling is a selling of produce that does not exist, in addition to that which does. The increase of supply thus caused by this fictitious store necessarily depresses prices; and the fact

¹ Reference may be made to the following (the more important of a very great mass of literature dealing with this topic): "Future Dealings in Raw Produce," *Report of Committee of British Association, Section F.*, 1900. Chapman and Knoop, "Dealings in Futures in the Cotton Market," *Journal of the Royal Statistical Society*, vol. lxi. pp. 321-64. Hooker, "The Suspension of the Berlin Produce Exchange," *Journal of the Royal Statistical Society*, vol. lxiv. pp. 574-604. Chapman and Knoop, "Anticipation in the Cotton Market," *Economic Journal*, vol. xiv. pp. 541-54. Emery, "Legislation against Futures," *Political Science Quarterly*, vol. x. pp. 62-86. *Special Report on Speculation and Prices of Wheat and Cotton.* *Report of U.S. Industrial Commission*, 1901, vol. vi.

² See, e.g., Order in Council of the Dominion Government dated July, 1919, establishing the Canadian Wheat Board for the marketing of the wheat crop of 1919.

that the whole annual wheat or cotton crop is sold many times over in the course of the year on, probably, more than one exchange lends statistical support to the statement. To this the reply may be made that these sales are also at the moment purchases, and the question of their amount is of little importance. Moreover, every short-seller must later on become a buyer before he can carry out his contract, and so far as spot prices are concerned he appears as a buyer and not as a seller. Thus, if his action in short-selling really does depress prices in the future, his action in covering his short sales makes him an unwilling instrument in raising spot prices later on.

It is possible to contend that, granting for every sale there is a corresponding purchase, yet the contending forces are not equal, and that short-selling is not necessarily equalised by long buying. Moreover, it may be urged that the price is depressed by a multitude of unaccepted offers. Now, it cannot be denied that an increase of supply, even if only speculative, does tend to depress price; but the question whether it succeeds actually in doing so depends upon the strength of the demand. Seeing that short-selling does not in fact depress prices to an unlimited extent, it is evident that demand relies for its strength on something other than genuine traders and ordinary consumers. This something is the speculation provoked when the price is depressed below what the speculators think it ought to be. Short-sellers cannot sell fictitious produce indefinitely; for the bulls become equally active, and their purchases raise the price. It is not only in a falling market that profits can be made; and it is just as easy to create a so-called fictitious demand as to create a so-called fictitious supply. The latter invariably calls forth the former as soon as the exercise of judgment by bull speculators leads them to think that bottom prices have been reached, and that it is now possible to speculate for a rise. It is not the fact that bulls are less enterprising than bears. They can, and do, go into the market at any time, and bid for large quantities of produce; and they raise the price with exactly the same success as the bears depress it when they offer to sell similar amounts.

That speculative sellers do not control the market is further borne out by the fact that prices of wheat and cotton rise and fall quite independently of the amount of dealings in futures. If it were true that the influence of these transactions is, on the whole, to depress prices, the greater their volume the lower the price ought to be. It is not easy, or even possible, to get complete figures from all the exchanges in order actually to test the connection, if any, between volume of dealings and price. Moreover, the practice of buying in one market and hedging in another may render the figures taken from a single market not altogether reliable. Yet the fact that there is no correspondence of the kind required in

such figures as are available affords sufficient reason for concluding that such a connection does not exist.¹

There are occasions when short-selling has temporary success in depressing prices, but the cause is then invariably impulsive action on the part of the majority of the speculators for which no reason can be assigned; and it is independent of the existence of any intrinsic good or evil in short-selling itself. If two or three dealers of known ability and financial strength continuously sell wheat when the general indications point to a rise in price they may succeed in bringing about a fall; for the other speculators in the market may be frightened and may lose their self-confidence, fearing the wisdom and strength of these operators rather than trusting in the indications and in the predictions arrived at by themselves. This is an instance of manipulation by means of a scare; but if the short-sellers are making a mistake the penalty they will be called on to pay will be immense. If, on the other hand, they are correct in anticipating an unexpectedly great supply they will reap a large reward for their superior economic foresight in putting the price where it ought to have been. This is precisely what happened in Chicago in 1891-92, when an operator, Partridge, sold large quantities of wheat and kept the price down in face of the unanimous opinion of expert forecasters that there would be a shortage of supply. Much was made at the time of the supposed evil effects of his short-selling; but events proved that he was correct. He just made the price what it ought to have been. Had he been wrong in his views as to the world's supply and demand, he would have been unable to have made good his contracts except at a loss; and his efforts to cover would have probably inflated the price temporarily to a point above the actual value. He could not have unduly depressed the price without involving himself in ruin. Thus, short-sellers succeed in depressing prices only when their action is in accordance with the public interest. They may have a very passing measure of success at other times; but it is immediately followed by thorough ruin and their disappearance from the scene of their operations. They can only make a profit and survive while serving the general interests of the community.

It would seem that, at the time the view prevailed that short-selling depressed prices, the main argument of its upholders was that other causes seemed inadequate to produce the low prices

¹ One set of figures, characteristic of others, may be instructive:—

WHEAT FUTURES SOLD ON NEW YORK PRODUCE EXCHANGE.

	Bushele.	Average price of wheat during the year.
1891 . . .	1,604,450,000	108 cents.
1892 . . .	1,079,713,500	89½ "
1893 . . .	972,670,000	72½ "

then experienced. Further investigation, however, has shown that in the particular cases of wheat and cotton there were additional causes depressing prices which were overlooked at the moment. Yet in one way it may be true that the operation of a futures market can depress the general price-level of the produce bought and sold in it; for the cost of handling may be so reduced by the perfection of organisation in the market that the price may be lowered to the consumer without a corresponding reduction of price paid to the producer. It must be admitted that in this case the tendency to deprive the producer of his increased proportionate share of the total price paid by the consumer might be one he could not easily resist; but statistics given in the British Association report¹ do not lend support to the view that the growth of futures markets in wheat has resulted in a remuneration to the farmer less in proportion than formerly.

A second suggestion, as to the effect of dealings in futures on prices, is that they cause greater steadiness (or unsteadiness) than would exist without them. At the outset of any discussion on this point it is desirable to give precise meaning to the phrase "price steadiness," and to examine in what it may be regarded to consist. Dealing in futures and the ordinary work of the speculator act, as has been already seen, in such a way as to concentrate in a single market all the factors influencing prices. By arbitrage transactions differences of price in different places are eliminated; and fluctuations arising from causes that can be foreseen are discounted in advance. Anticipation of changes in the future market prices affect the present price; and violent future changes are thereby avoided. On the other hand, the more perfect the speculative side of the market becomes the more sensitive it is to every change in conditions; and an alteration in the supply or demand of the commodity has more influence than it ever had before. Therefore, as a market develops on the speculative side, the less violent, but also the much more frequent, fluctuations in price become. A ceaseless fluctuation within certain limits, with a tendency continually to narrow those limits, is the natural result of every speculatively active market. It is only right, however, to point out that there are occasions when speculation is responsible for increased fluctuation. The possibility of manipulation, for instance, cannot be excluded; and there is now and again the opportunity for panic influence, and the violent movements in price due solely to the unreasoning excitement of a crowd. But those cases are rare, and of short duration when they do occur.

1 " Years.	Average farm price.		Year ending		Average export price.	
	Wheat—cents per bushel.		June 30.		Wheat—cents per bushel.	
1869-78	.	104.7	1870-79	.	126.6	
1889-98	.	66.5	1890-99	.	79.7	

"These figures indicate a fall of not very different proportions in the two prices."

The question, then, in what does price steadiness consist has to be answered. There are two variables to be considered—frequency of fluctuation and extent of fluctuation. Which is the more important, and which ought to be the determining factor in any given case? It is not easy satisfactorily to frame a definition for a term which, after all, is comparative. The ideal steady price is one which never alters; and, on the whole, therefore, it might be better to regard a price which changes less frequently to be steadier than one which varies more often, and to say that less frequent, if more violent, variations from a simple average constitute increased steadiness. But it is evident that the community is interested rather in having the extent of fluctuation narrowed than the frequency of movement diminished; and it regards more frequent changes by means of small increments as less harassing than less frequent changes by larger increments. Therefore, to conform to the popular, if less logical, view a price is steadier according as its fluctuations diminish in extent, even though they may increase in number. A diminishing range of movement (neglecting small oscillations), less variation from the average, are the characteristics then of growing steadiness. In this sense of the term it is true, theoretically, that dealing in futures has led to greater steadiness of price; and statistical investigations seem to support this contention. It is not easy to devise a satisfactory statistical measure of price steadiness; because the extreme quotations at the two ends of the range, which are those that must be used, may be entirely accidental, and quite out of relation to the rest of the prices in the period considered. Accordingly, undue weight need not be attached to the results of such investigations, though the fact that they do not, on the whole, contradict results reached otherwise must be admitted to possess some significance. The greatest difficulty met with by the statistician arises from his ignorance of the extent of dealings by the inexpert public, and of the degree in which dealings are used to influence prices, instead of being determined by them. There seems to be little doubt that certain marked periods of price unsteadiness in the produce markets in recent years have been accompanied by increased tampering by syndicates, and increased gambling on the part of the outside public; but which is cause and which is effect is a question not easy to answer. Many changes, both permanent and temporary, in economic conditions have accompanied these movements; and these may have been the really determining factors influencing the course events have followed.

Another change in price phenomena directly traceable to speculation is the gentler gradation of the fluctuations. Only second in importance to the fact of the fluctuations themselves and their extent is the question whether the extreme points are

reached suddenly or by easy stages. A moment's reflection at once shows that a speculative system affords the most advantageous means by which this desirable end of easy gradations can be attained. There are always some persons in the market ready to buy as soon as prices begin to fall, and others ready to sell the moment prices begin to rise. Thus, a sudden large change in price is very rare; and the finer sub-divisions in the quotations now employed in the cotton and wheat markets are the outward indication of the growth of price movement by easier stages. This development is of great practical benefit; because the public thereby gets early warning of a change in values, and the smaller holders of produce are enabled to unload their stocks, if the market is falling, without the serious loss that they would incur if the price jumped at once to its lowest extreme, while the small purchasers are enabled to buy their supplies before the price reaches its uppermost limit; but the value even to the larger merchants, producers, and consumers, of a graduated price movement is too obvious to require discussion.

It may be instructive at this stage to glance at the opinions expressed by farmers themselves, and by others speaking on their behalf, concerning the effect of dealing in futures on the prices received by them for their harvests.

"Were it not possible for large elevator companies and exporters to hedge their holdings of grain, the farmer would be unable to dump his large crops, as at present, on the market within the three months of the crop-moving season and receive cash therefor. No class of middleman could be induced to take a year's harvest within so short a time and hold it for gradual distribution during the balance of the year; and if any cared to be such reckless gamblers, it is doubtful if bankers would care to finance their operations. Without the hedging privilege, elevator owners and their dealers would be obliged to discount the enormous risk assumed in buying large quantities of grain, and, to be on the safe side, would have to make allowance for the worst contingency anticipated by offering the farmer a much smaller price for his grain than is now given. It is generally maintained by the leading interests in the market that without the hedging privilege farmers would get an average price of at least 10 per cent. less than that prevailing to-day."¹

Again—

"In the absence of hedging, every one in the grain business, from country elevator company to exporter, would undoubtedly demand a greater margin of profit on account of the increased risk. . . . It is practically the unanimous opinion of men intimately connected with the grain trade that the abolition of future trading, which implies the elimination of hedging, would result in the farmer receiving less for his grain. There is no doubt that, without the

¹ Huebner, "The Functions of the Produce Exchanges," *Annals of American Academy of Political and Social Science*, vol. xxxviii.

protection of these hedging transactions, which enable a large volume of business to be done along a small margin, every one handling grain would require a larger margin of safety, and this in the end would come out of the grower. . . . If trading in futures were eliminated in this country, the farmer would surely have to take from five to twenty cents per bushel less for his wheat."¹

The farmers themselves, at first, were hostile to the exchanges; but that feeling has now passed away.² Instead, they are coming to realise that they can learn more, and accomplish more by obtaining places in the grain exchanges than by unreasonably attacking them from outside. The Farmers' Co-operative Grain Dealers' Associations in North-West Canada are members of the Winnipeg Grain Exchange. The Farmers' Equity Union of the United States is represented on the Omaha Grain Exchange, and has also purchased membership of the Kansas City Board of Trade. Numerous other farmers' societies in America have expressed themselves well satisfied with the existing methods by which their wheat is marketed; and they do not consider that the speculators' interests are necessarily hostile to their own.

Comparisons of prices, before futures were used with prices at present, yield results of doubtful value; because such early periods have to be taken as representative of non-futures trading times, that economic conditions of a kind wholly dissimilar to the present enter as disturbing features. Dealing in futures has only gradually attained its present magnitude; and its coming has been attended by many other important economic changes. Therefore, the conclusions drawn by the United States Industrial Commission, 1901, from its comparative study of prices before and after speculation, on both the wheat and cotton exchanges, ought not to be pressed too far. Yet they are worth recording, and they point to the fact that month to month fluctuations in price have steadily diminished in extent, but increased in frequency since 1840, the earliest date considered. Moreover, there are indications that the natural tendency to falling prices, when the new crop comes on the market, has not only been counteracted by the development of speculation, but has been turned into an opposite movement, making the April and May price of wheat differ from the autumn price only by the cost of storage, interest, and other carrying charges, and sometimes even by less than these.³

¹ Harris, "Methods of Marketing the Grain Crop," *Annals of American Academy of Political and Social Science*, vol. xxxviii.

² The President of the Chicago Board of Trade, in his report for the year ending December 31, 1920, notes with satisfaction that futures trading was not even mentioned as a contributing cause among the seven reasons outlined by the Federal Trade Commission which investigated the causes of the decline in the price of produce in 1920. The farming interests were strongly represented in this enquiry.

³ The series of charts pp. 32-40 in the *Report on the Winnipeg Grain Exchange*, September 10, 1921, afford good illustrations of this statement.

The interference of the German Government in 1896 with the exchanges under its supervision, and the resulting suspension of dealings in futures on the produce section of the Berlin Bourse, afforded an opportunity of testing practically the effects of trading in futures on prices. But in this case, also, caution is necessary in drawing conclusions; for it is extremely improbable that the prices in Berlin during the period of suspension were independent of those in the remaining speculative markets. The market for produce is a world market; and no one of its subdivisions can ever be uninfluenced by what happens in the others.

The demand for this restrictive legislation first arose from the failure of certain banks in Berlin, in 1891, which misused their deposits in rather rash speculation on behalf of customers who were mainly ordinary members of the non-trading public. In 1892, the Imperial Government appointed a commission to consider the whole question of the Bourse and of the speculation that took place there. The report of this body, which appeared towards the end of 1893, recommended certain statutory and administrative changes; but, on the whole, it was impartial, judicious, and prudent. The Reichstag at the time was controlled by the Agrarians, or rural land-holding party, which consequently had undue influence over the Government. This party was naturally dissatisfied with the low prices then prevailing for all agricultural produce; and it blamed the system of future delivery on the ground that it allowed the short-seller time to get in his supplies from abroad, and thus, by favouring imports and increasing the available supply, to depress prices. Under pressure from it the Imperial Government, in 1896, passed a law (the Exchanges Act ¹) to operate from the beginning of 1897, containing provisions much more stringent than those recommended by the commission.

These provisions may be classified under five headings:—

- (1) General organisation;
- (2) Quotations of prices and duties of brokers;
- (3) The listing of securities;
- (4) Transactions for future delivery; and
- (5) Dealing on commission.

A register was established in which was to be recorded the name of every person engaged in transactions in futures. Contracts made by persons entered on the register were declared binding; but if one of the parties was unregistered the contract was void, and that one whose operations were ill-judged could evade payment by putting forward the defence of wager. The object of the Act was to prevent the manipulation of prices by short-sellers, cornerers, and others, especially against the interests of the producers, and to prevent the outside public participating in speculative transactions.

¹ *Börsengesetz.*

The law did not actually prohibit contracts for future delivery. All it did was to prohibit them when made " according to exchange procedure " ¹; and slight changes in the form of contract in use at Berlin were sufficient to alter the transactions from exchange (*börsenmässig*) transactions into ordinary commercial (*handelsrechtlich*) dealings. But difficulties arose in connection with the appointment of a board, heavily weighted with agriculturalists, to assist in the management of the exchange, and the consequent secession of all the produce brokers from the exchange building, leaving the Government nominees no brokers to preside over, and the Agrarian representatives no colleagues with whom to do business. The seceding members moved across the street and took up new quarters. Here, trading for future delivery was carried on, but without the machinery for clearing and the official announcement of prices, and with the contract forms expressly stating that the established usages of the grain trade were not there in force. Short-selling continued as before, but there was much hesitation and uncertainty.

After a short time, under further pressure from the Agrarians, the Government notified the brokers that it considered their new organisation an exchange and therefore subject to the Act; and it forced them to make yet other arrangements. They next took refuge in a hospital, in the various adjoining rooms of which each broker claimed to have a private office and to do business only in strict accordance with the commercial code. They, therefore, had no fixed formal rules as to " contract grade," " option of delivery," etc.—no clearing house or official price quotations. In course of time a private agency arose which cleared settlements for those who cared to use it; but the hindrances to properly organised exchange dealings were serious in the extreme.

It was not long before the effect of this hampering and the practical cessation of organised speculation began to be felt in the grain trade. Disorganisation set in all over the country with the disappearance of the central indicator, the Berlin price list. The local markets increased in importance, but they, too, were subject to similar restrictions. Moreover, they varied widely as to rules concerning dealing; for contract grades and prices were local only in influence and could be of little help in aiding the farmer or the miller to determine what was a fair price for his grain. As a substitute for the old central price reports, a board was established to collect and publish three sets of prices: local spot prices in Berlin, Dantzig, and Stettin; a few other large market prices; and prices on foreign exchanges, the latter being exactly of the speculative class abolished in Berlin. The inadequacy of these prices is obvious. The two former were local prices, under local

¹ " Der börsenmässige Terminhandel in Getreide und Mühlenfabrikaten ist untersagt."

conditions, figures of sales that had taken place and not of prices at which futures might be bought or sold ; while the foreign prices were of no use to the German producer who, normally, did not export grain, though they may have been of use to the miller who hedged on the exchanges abroad.

The regulation as to registration proved a failure. The leading banks made every effort to require registration by refusing to deal with unregistered persons except in purely cash transactions. Yet not only the general public, but even the smaller brokers and provincial banks declined to put their names on what they called the "gambling register." This portion of the Act was repealed in 1908.

It was in the case of the stock markets that the greatest abuses and dislocation took place, in consequence of the failure of the registration clause and the substitution of so-called cash dealings ; but, as regards produce, it seems probable that the buyers, feeling the need of greater caution, in consequence of the absence of an authoritative price list of actual transactions, were less liberal in their offers to producers, and the latter less able to inform themselves as to whether they were being fairly treated by the larger merchants than when they could refer to the prices in Berlin.

It is not a simple matter to deduce from the German experiment the effect of short-selling on prices. By incurring a little more expense dealers were able to take advantage of the foreign speculative market for their hedging operations. Moreover, the period of greatest restriction coincided with the beginning of a rise in prices throughout the world, a rise in no way attributable to German legislation. The results obtained by the several statisticians who have examined the question, point to the conclusion that the suppression of dealings in futures did not raise prices in Berlin, but lowered them, and in all probability rendered them less stable. The Liberals in Germany itself asserted that German prices, for lack of former speculative demand, lagged far behind prices in foreign markets ; to this the Agrarians replied that prices in Germany were always lower than prices abroad, but that the difference was less under the new system than it had been under the old system.

From the fact that they constantly made demands for further suppressions, and, in their efforts to get introduced a reliable method of price determination, sought to require a compulsory declaration to some authorised body of every sale of grain, with details of quality, price, and conditions of transfer, it is clear that the Agrarians were by no means satisfied with the results of the Act. Attempts between the two parties to come to agreement led to the return, in 1900, of the produce brokers to the exchange. They were still forced to keep to crude devices to avoid the law, and they remained in a state of legal uncertainty as regards their

contracts. In 1908, there was another attack by the Agrarians on grain futures, and still further restrictions, which caused the traders to threaten to close the exchange altogether. They refrained, however, from taking this step on being assured by the authorities that hedging would be permitted; and since then there has been no further legislation to harass them.

For several reasons the results of this Berlin experiment are less instructive than might appear at first sight. In the first place wheat, which alone can serve as basis of comparison with other markets, is not the main grain food of the bulk of the German population in the way in which it is of the populations of France, America, and the United Kingdom. Therefore, the German demand for wheat is more elastic than the demand in other centres of speculative activity; and wheat price movements, consequently, may not exhibit the same range of variation as elsewhere. Again, the fluctuations in the price of wheat in Germany must necessarily be interwoven with the fluctuations in the price of all the other grain food—rye, oats, barley; and comparisons with markets in countries where wheat alone is used are vitiated by the fact that there are influences at work in one country which have no effect in the rest. Moreover, the fact that during the period for which comparisons can be made, Germany both imported and exported wheat, while the contrasted countries either imported or exported only, accentuated the effect of price movements in Germany to an extent not possible elsewhere. Indeed, one writer¹ admits that Germany suffered from injudicious exports in the autumn of 1897, encouraged by the abnormally low price at home compared with that abroad, and afterwards, in the same crop year, had to import at a high price to meet her own necessities. But too much importance, perhaps, need not be attached to these considerations which, after all, demand but slight qualifications in the general conclusions.

Another point of importance in the discussion of the effects of dealings in the organised markets on prices is the relation between spot prices and the prices of futures. In the main it is the same factor that determines the price of spot goods as determines the price of future goods, viz. the present and anticipated future conditions of the market. Present supply depends on anticipated future demand as well as on the actual demand at the moment; and spot prices, therefore, cannot be determined independently of the market judgment concerning the future. Prices for cash and future goods vary together, moving up and down in accordance with estimates of future supplies and future needs. Yet, since the prices of future goods are not determined by temporary inadequacies in supply, and are much less under the influence of the circumstances of the moment than the prices of present goods,

¹ Hooker, *loc. cit.*

it is not to be concluded that the differences between them must be always of the same degree of magnitude. A comparatively urgent present demand might cause a large movement in a present price which would affect prices of future goods in the same way, but to a much smaller extent.

A distinction must be drawn between futures whose delivery periods, in the case of wheat and cotton, lie within the current crop year and those whose periods run into another crop year. When the contract runs forward to the time of incoming receipts from the new crops, the price for that delivery is often distinctly lower than in the case of futures culminating before the end of the current crop year. For example, in Chicago, May futures normally stand high and well above spot wheat in the early part of the crop year. The new crop begins to come forward in July, and hence July futures are often below the price of those of May. For the same reason September futures in the summer are relatively low; but as the year proceeds, and dealing in December futures begins, the price again rules high, in some degree, according to the distance of the delivery month.

In the case of wheat, the prices of futures normally stand higher than spot prices by the cost of storage, including interest, insurance, etc., so that, when account is taken of these items, prices for different times are practically the same. There are, however, causes at work to spoil this simple harmony—cutting of charges for storage, the failure of outside speculation to maintain the market against hedging sales, the buying and carrying of wheat by elevator companies at exceedingly low prices, and the consolidation of brokerage and transport charges by these firms all bring down the prices of futures compared with spot wheat.¹

For example, the quantity of wheat in store in England in the possession of the Government on July 3, 1921, and the fixing of an official price for its disposal, rendered the market for Liverpool wheat futures nominal. Spot price was round about 16s. 6d. per cental, while September, October, and December futures were quoted 13s. 10d., 13s. 8d., 13s. 7d. respectively. But anticipation of increased supplies, and of lower rates of interest and discount, were also contributing factors in this case in bringing about a comparatively low price for futures maturing in the succeeding crop year. Moreover, there may be causes at work operating on one price alone, and driving it up or down independently of the rest. For example, if short-sellers all come in at the same time towards the end of one delivery period to make purchases to cover,

¹ Throughout the crop year, 1920-21 (September 1, 1920 to August 31, 1921), there was a premium on spot wheat in the Winnipeg market. This is accounted for by the fact that millers and European importers declined to buy wheat for distant months owing to the disturbed financial situation and to difficulties of payment consequent on fluctuations in foreign exchange rates.

the spot price will tend to rise well above the prices for later delivery periods. Similarly, a concentration arising from any other cause, even long before the time, may succeed in driving up futures of one selected delivery period above those of other periods. Again, trade requirements at certain times of the year also intervene to throw the list out of line. Mills may need wheat for grinding; and elevators, when empty, tend to bid up wheat for immediate delivery in order that they may earn storage.¹ This may happen in the early spring; and in a large milling centre, like Minneapolis, the demand at that season sometimes puts spot prices above the prices of July or even May futures. This is all the more the case if the demand is pressed; for the needs in spring must be satisfied out of the existing crop supply, while future needs will be met by the new crop.

Since the greater part of the cotton crop comes from a single area, is harvested during a very narrowly defined part of the year, and is calculable in magnitude a considerable time in advance, it is but reasonable to conclude that the break in the continuity of futures between two crop years depends upon a clearer basis of facts than is the case with wheat, which is always being sown or harvested somewhere in the world all the year round. As information about the new crop becomes more complete, the prices of futures referring to that crop become more responsive; and the gap between the prices for the new and the old is either accentuated or smoothed, as circumstances require. A sudden drop as the harvest month is passed indicates the expectation of a much lower level of spot prices in the coming year, due either to a very large crop in sight, or to a forecast of greatly lessened demand.

The price of cotton futures for the current month is always a certain variable amount below the spot price.² This is a consequence of the disadvantages, already discussed, of buying actual cotton by means of futures. Hence, towards the end of any current month, the majority of transactions are those of dealers buying back futures. Neither buyer nor seller wishes to have the contract terminated by delivery; and so a price is reached for invoicing back, which is convenient for both to accept rather than to have the original agreement carried out. This is invariably below the prevailing spot price of the moment.

Turning now to the relations between spot prices and the prices of futures with different periods to run, seven different possibilities are found, if the assumption is made that the series

¹ This remark must not be taken to apply to public terminal elevators in Canada, which, unlike those in the United States, are confined by law strictly to warehousing business; they are not permitted to buy or to deal in wheat on their own account.

² In June, 1921, the amount was 20 to 25 points in Liverpool.

of prices is continuous. The accompanying diagrams illustrate the seven cases. As cotton futures are usually quoted for the current month, and each of the succeeding eleven months, the base line or horizontal axis in each diagram is divided into eleven equal parts. Twelve points, reckoning in the origin "O" are thus obtained, each of which corresponds to one of the twelve monthly periods for which futures are quoted. If June is the current month, then O represents June, A July, B August, and so on. Measuring vertically upwards, from B *e.g.*, BQ represents, on some selected scale, the price of August futures; OP similarly represents the price of current futures, on the same scale; while OS is the spot price. On the assumption made concerning continuity, P, Q, and the remaining ten points lie on a continuous curve which may assume roughly, any one of the seven shapes depicted.

The following are the main characteristics of each case:—

I. The prices of futures gradually increase as the delivery becomes more remote, without ever reaching the spot price.

Ia. The prices of futures in the range increase at first, and afterwards diminish, the highest price reached being less than the spot price.

Ib. The prices in the range increase as the delivery month becomes more remote, and rise above the spot price.

Ic. The prices increase at first, rise above spot price, and later fall, possibly, below spot price again.

II. The prices steadily diminish as the delivery month becomes more remote.

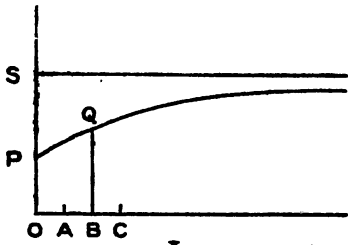
IIa. The prices diminish at first, and in the later months rise again, without attaining the level of the spot price.

IIb. Prices diminish at first, and then rise until they exceed the spot price in the later months.

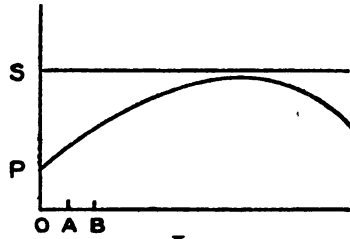
It now remains to discuss the possibility and the probability of one case rather than another occurring in practice.

The prices of futures must move along with the price of spot cotton. A rise in the price of spot cotton means that there is a present shortage, or an anticipated shortage in the near future. This is immediately shown by an increase in the offers of cotton for the future. Conversely, if futures rise in price it means that dealers have concluded that the total available supplies will be insufficient for the season if the present rate of consumption lasts. There follows, therefore, a tendency to conserve existing stocks, and the spot price rises. Buying of cotton, except for immediate needs, is checked, and purchase of futures takes its place. Thus the prices of the latter are influenced, those for the remoter periods to a less extent than those for the nearer. Yet the whole range does move in the same direction. This rise encourages importers to ship home greater quantities, and to sell futures as

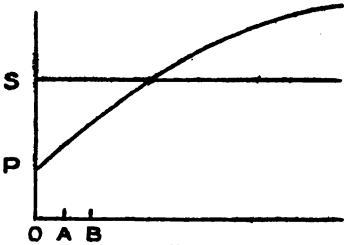
hedges against these new cargoes ; while others avail themselves



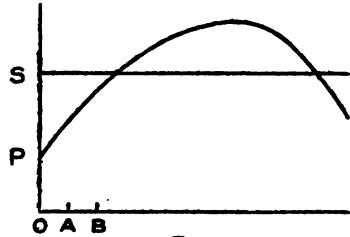
I.



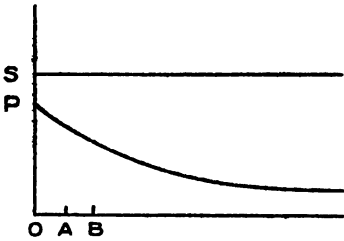
I a.



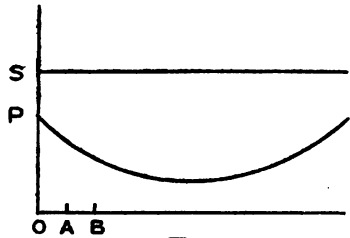
I b.



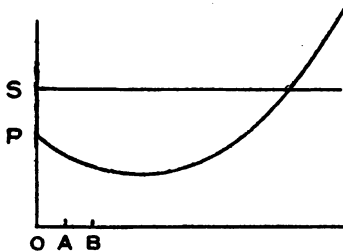
I c.



II.



II a.



II b.

of the opportunity to sell their cotton, and buy back the futures formerly sold against it.

It is obvious that, other things being equal, the longer a futures

contract has to run the greater is the possibility of cotton being available at a low price to meet it, and, therefore, the lower its price. Moreover, it is an expensive operation to hold cotton, and the expense increases with the length of time. For this reason, also, the more remote futures tend to fall in price below those maturing sooner. If the market is expected to fall steadily, on the whole the prices of futures will be less as their delivery periods are more distant. On the other hand, if the market is expected to rise the more remote the delivery period the higher the price. But there is an upward limit to the possible rise in this case. The price cannot exceed the price of spot plus the cost of holding. It is not often that the market prospects seem to favour a seller to such an extent as to make it probably worth his while to hold his cotton; but there must always necessarily be some who reckon on a profit from higher prices in the future, and it is they who, in such a case as this, have it in their power to maintain the high prices of the more remote futures.¹

According to Chapman and Knoop,² there is at any moment in the Liverpool cotton market a kind of feeling which criticises and judges the spot price to be high or low, in reference to what they term the "norm," *i.e.* the price at which the cotton should sell, in view of the crop and stocks and demand existing and foreseen. That the spot price does not coincide with the norm is owing to the greater weight given at the moment to the present demands in relation to Liverpool supplies, and to the cotton on the way. When the spot price is high in this sense, then the market is likely to fall; and the opposite is the case when it is low. The effects of these impressions on the prices of futures have just been described.

Now, turning again to the curves, it would seem from these considerations that II is, on the grounds of theory, the most likely of all to occur. There are not sufficient data available to enable this probability to be tested by the facts, but there is no doubt that it is an exceedingly common case. The quotations for American cotton in Liverpool on January 18, 1922, form a good example.³ I is probably the next most common, and seems to have been at one time the characteristic form for wheat. IIa and Ia occur with fair regularity; IIb less often; Ic scarcely ever. Ib, described by Chapman and Knoop, in 1904, as happening "only very seldom," has been much more common of late. It was

¹ This is likely to occur more often in the case of Egyptian than in the case of American cotton.

² *Loc. cit. Economic Journal.*

³ The figures were: Spot, 10.58; Jan. 10.23; Feb. 10.18; March, 10.18; April, 10.14; May, 10.12; June, 0.07; July, 10.04; August, 9.93; Sept. 9.79; Oct. 9.65; Nov. 9.55; Dec. 9.49.

the form for a great part of the middle of 1921,¹ for the ordinary American cotton futures in Liverpool. This was a period of slack trade with the probability of a considerable carry over (or unused surplus) from the current into the succeeding crop year. Moreover, the prospects of the coming crop were not very good. Therefore, there was no likelihood of shortage, on the one hand, or of particularly abundant supplies in the near future, on the other hand. The consequence was an absence of break in continuity in the prices of August and September futures, with a rising gradation in the prices of the more distant futures, the justification for the latter phenomenon being the anticipation of a continuation of demand at its usual level.

An equally interesting question is that of the agreement of the prices of futures some time before their delivery periods with the spot prices prevailing during their delivery periods.² Statistical comparisons of this kind were among the earliest made with a view to testing the influence of speculation on prices; but before conclusions can be drawn from such figures the assumptions made in compiling them require careful examination. If the price of futures is the spot price, plus cost of carrying, then the comparison is simply one between spot prices at different periods, influenced by such disturbing factors as changes in the rate of interest and movements in the cost of storage; but if the spot prices and the prices of futures are independent (and this may be assumed if the existence of Chapman's norm is granted), then the comparison is a justifiable one, provided allowance is made for

¹ The figures appended may be useful—

1921.	June 1.	June 8.	June 15.	June 22.	June 29.
Spot	8.18	8.31	8.29	7.66	8.03
June	7.98	8.06	8.04	7.46	7.88
July	8.28	8.22	8.20	7.50	7.91
August	8.42	8.35	8.31	7.61	8.06
September	8.54	8.47	8.44	7.75	8.20
October	8.66	8.59	8.58	7.93	8.36
November	8.74	8.66	8.66	8.02	8.44
December	8.82	8.74	8.74	8.10	8.53
January	8.88	8.80	8.79	8.15	8.57
February	8.92	8.84	8.84	8.21	8.62
March	8.96	8.89	8.89	8.27	8.67
April	8.99	8.93	8.93	8.31	8.71
May	9.02	8.96	8.97	8.35	8.75

² Cohn and Kantorowicz, figures in Schmoller's *Jahrbuch*, vol. xv. p. 220, reprinted in the *Statistische Anlagen* of the *Börsen-Enquete Kommission*, Berlin, 1893. Emery, *op. cit.*, p. 132. *Report of United States Industrial Commission*, 1901, vol. vi. Stone, *Special Report on Speculation and Prices of Wheat and Cotton*.

the fact that in the interval, say from June to September—if those are the months in question—strong bulling or bearing influences may be at work disturbing September spot prices to a degree not experienced by June prices.

With these considerations, then, in mind, some results may be given which are taken from the *Report of the United States Industrial Commission, 1901*, summarising several pages of tables and of charts containing spot and futures prices. The *Report* proceeds: "Out of fifty-seven different futures compared with the spot prices realised in the New York cotton market from 1881-82 to 1889, in twenty-nine cases the futures proved to be higher than the spots realised three months hence, and in twenty-eight cases the futures were lower than the spots at maturity, that is, the speculative judgment anticipated the realised value of cotton a little too favourably in half the cases, and not quite favourably enough in the other half.

"In the Liverpool market, out of fifty-seven cases (1881-82 to 1899) of comparison of future bids with spot prices realised at the expiration of the contract period, it appears that in thirty cases the future prices were lower than the spot prices realised at the maturity of contract, and in twenty-seven cases the future prices were higher than the spot prices realised at maturity. In the New Orleans market, out of fifty-one cases, in twenty-five of them the future price was lower than the spot price realised three months later, and in twenty-six cases the future price was higher than the spot price.

"These results would seem to support the conclusion that, in the long run, the speculative quotations for future delivery are neither uniformly above nor below the level of the proper cash value of cotton as determined at the future date, but that they are tentative anticipations of such realisable value as the conditions of supply and demand are most likely to determine at the time when the future contract matures."

In evidence given in 1892 before the German Imperial Commission¹ on the exchanges already referred to, it was strongly maintained that one effect of dealing in futures was to raise the price of the contract grade in comparison with the price of the other grades, or, what comes to the same thing, to depress the prices of the other grades in comparison with the contract grade. Similar statements are made from time to time in connection with the organised markets in other countries; but investigation of the definite examples quoted shows that in every case there was either actual scarcity, or over-abundance, or difference of demand for milling or export purposes, and that spot prices were in all cases determined by relative qualities. If either, of two grades are legal tender on futures contracts, it is natural to expect that the

¹ See *Report*, p. 120.

grade which is more abundant and cheaper in any year will become the ordinary contract grade, and that the other will be delivered only at a premium. The rules of most exchanges make provision for this; and no conclusions of the kind under discussion can justifiably be drawn from their action in this respect.

Hitherto, the discussion has centred upon the more direct effects of speculation upon prices, so far as they can be ascertained. It now remains briefly to notice some of less direct, but possibly more far-reaching, influences on supply and demand in general.

Speculation in the organised markets contributes to the regulation of consumption of produce, both in time and in place. Rise in price is the immediate consequence, as already seen, of a conviction on the part of experts that supplies are being too rapidly consumed. In this way the necessary diminution is brought about in the rate of consumption, and the falling off is accurately adjusted to the needs of the case. Similarly, arbitrage dealings ensure the transport of produce, from place to place, in accordance with the requirements of every district. Scarcity in one place, indicated by a rise in price, draws supplies from other places where prices are lower and demand less pressing. Hence, speculation exercises a directive influence in distribution; and thereby, with its control of markets and prices, it reacts on production and consumption, and not infrequently modifies the nature of new developments in industry and in commerce among the leading nations of the world.

It is difficult to determine the extent to which the quotation of futures for several months ahead influences producers or farmers in deciding how much wheat or cotton to plant in any given season. In cotton, especially, where futures are quoted a full twelve months ahead, the farmer, theoretically at any rate, knows almost exactly what to expect for his crop. It is said that in consequence some of the large planters in the Southern States are guided somewhat by the prices of futures. At the same time by far the greater number of the small growers plant the same average from year to year, largely independently of the price. It needs, however, action on the part of but a small number of the large growers to bring about an adjustment of crop to anticipated price; but the fact remains that the latter is a variable price altered frequently, particularly in the case of the more distant futures, in accordance with crop and acreage reports, and that the accuracy of forecast is in inverse ratio to the length of time ahead. Hence, it cannot be relied on by a planter as a safe guide. The price on which he does depend is the prevailing price over a series of years, or else the spot price of the moment. The prices of distant futures in the speculative market are rarely taken into consideration.

In the case of wheat, the quotation of futures does not reach

ahead from the time of planting to the period of harvest. Hence, there is not the same possibility of the use of speculative prices as in the case of cotton. Furthermore, wheat farmers, like the larger cotton farmers, are not quick to take advantage of market conditions. What has happened in the past is their guiding sign-post rather than what is likely to happen in the future.

CHAPTER XI

FUTURES IN COMMODITIES OTHER THAN COTTON AND GRAIN

APART from cotton, wheat, and maize, dealings in futures in produce in the United Kingdom are confined to sugar and coffee under contracts guaranteed by the London Produce Clearing House, Ltd. The methods employed by this firm have been already described.¹ In accordance with its rules it is not prepared to guarantee contracts for future delivery of wheat except "ex-warehouse," London, after inspection. As the millers prefer to buy "ex-ship," a seller of London wheat futures would find himself at a disadvantage; for he could not pass on to his buyers the rather large costs of unloading and storing which they decline to incur on their own account. As these costs are considerably higher than at other ports, and as the docks are not particularly well adapted for the handling of grain cargoes, dealers in wheat futures in London meet with obstacles absent elsewhere. For these and other reasons² transactions in grain futures practically ceased in 1904.

Pepper used to be handled in London through the Produce Clearing House's contracts; but the ring of dealers in that commodity came to the conclusion that the comparative publicity involved in the registration of their contracts gave away trade secrets. Therefore, this business has also disappeared.

Attempts at handling tea by means of transactions in futures have always failed, owing to difficulties in grading. It was found that the experts were unable to value consistently even their own samples when confronted by them a second time. Some success is being met with in efforts to induce the rubber trade to adopt a standardised form of contract for future delivery guaranteed by the company. There is no doubt that such an agreement would do much to mitigate the violent fluctuations in price that have been so frequent, in recent years, in the case of this commodity.

Sugar futures have always been a large item in the company's business, and, now that the effects of the dislocation caused by Government control during war-time are passing, they are making their appearance again. The old form of contract, however, which contemplated a unit of 400 tons f.o.b. Hamburg, has given way to one based on a unit of 50 tons, ex-store London. Contracts

¹ P. 56.

² See p. 114.

are entered on in August, for example, for delivery during any month up to and including the following March. Sugar is a commodity exceptionally well adapted for organised market dealing. Unlike tea, it can be graded with extreme precision by means of simple chemical tests; and it also fulfils, to a high degree, all the other conditions requisite for dealings in futures on a considerable scale. In New York, which was always a large market for sugar, dealings in sugar futures, suspended in August 1917, were resumed in February 1920. Owing to the very wide fluctuations in the prices then ruling, the margins demanded were large and the business at first consequently small; but later in the year hedging contracts began again, and there was an increase in the number of dealings recorded. The Exchange, however, arranged to permit business in a contract in refined sugar; for it was felt that such a contract would appeal more to the trade than one in the raw product. Further, it made provision in this new contract for delivery in Chicago. It will be interesting to observe the progress of this innovation; for hitherto attempts to establish dealings in futures in other than raw materials have always met with failure. There is a fair business in coffee futures in London under the Clearing House Company's standard contracts, the basis being No. 5 Santos Type, determined in the following manner: The Board of Directors appoints every year, from among its members, a standing committee of three called the Coffee Type Committee, to which an undefined number of members of the coffee trade are added. To this body is entrusted the duty of selecting, renewing, and adjusting, from time to time, the following seven types:—

Type No. 1	Extra fine
" No. 2	Prime
" No. 3	Superior
" No. 4	Fully good
" No. 5	Good
" No. 6	Regular
" No. 7	Low regular

Types are fixed for one year, and the experts assess tenders according to the following scale:—

No. 5 basis.		
No. 1 premium of	9s.	per cwt. (for quality)
No. 2	"	7s.
No. 3	"	5s.
No. 4	"	2s. 6d.
No. 6 allowance of	1s. 6d.	; " and
No. 7	"	3s.

The unit of amount is 250 bags (= 290 cwt. net). In case of a threatened corner, the seller, with the permission of the directors,

may have his contract invoiced back to him or may tender any other merchantable coffee in bags of a quality judged equal to or superior to "Good" with a fine of 3s. per cwt. In this way any injustice resulting from narrowness of range or temporary shortage of Brazilian coffee in London is entirely obviated; and, at the same time, the interests of the purchasers are adequately protected.

Three-quarters to four-fifths of the world's supply of coffee comes from the three Brazilian States of São Paulo, Minas Geraes, and Rio de Janeiro. Up to about the year 1900 increasing demand, virgin soil, and cheap labour led to easy profits with careless and uneconomic methods of cultivation and preparation. After 1900 conditions changed. Supply exceeded demand, surplus stocks began to appear, and prices which had already been declining fell below even cost of production. Moreover, the Brazilian rate of exchange began to alter rapidly in a manner prejudicial to the interests of exporters. The more competent growers perceived that the real remedy lay in improved methods and in reduction of costs, but the majority turned to the banks for aid. When this source of help failed them recourse was had to the artificial checking of supply; and the Government was induced to help by the prohibition of further planting. But owing to evasion of the law, the improved methods of cultivation adopted by some growers, and the maturing of trees planted out during the preceding ten years, the total output continued to increase. Matters reached a crisis when the latter suddenly jumped from 17,300,000 bags in 1905-6 to 20,000,000 in the following season, and that, too, at a time when there was already a surplus on the market of more than 4,000,000 bags.

It was at this time that the coffee States started the "valorisation" plan which proved so disastrous for one of their number, São Paulo. In accordance with this project, the three States, São Paulo, Minas Geraes, and Rio de Janeiro, agreed to purchase and hold for higher prices sufficient coffee to keep out of the market all but the actual amount needed to supply the world demand. This latter was estimated at 17,000,000 bags. It was anticipated that, as Brazil had by far the greatest share in the trade, this withdrawal of excess supply would send up prices immediately to the minimum fixed by the governments as the price giving a "reasonable profit" at the existing cost of production, the price at which purchases and subsequent sales were to take place.

It was proposed to raise the funds needed for the purchase by a loan of £15,000,000 on the credit of the States, interest and sinking-fund to be provided for by a surtax on coffee exports. The loan, however, could not be placed without guarantee by the Federal Government, and this was not forthcoming. Minas Geraes and Rio de Janeiro at once withdrew; but São Paulo, which

produces 60 per cent. of the total crop, and of whose exports at that time coffee constituted more than 98 per cent., decided to act alone. Large coffee houses in Europe and the United States, along with some London and New York banking houses, lent almost £18,000,000 between them; and, by the end of 1907, São Paulo had bought nearly 8,500,000 bags at more than 5s. per bag above the market price. Yet prices failed to rise. In fact, they fell slightly, due probably to dealers refraining from buying in consequence of the huge Government stock, and also to the placing on the market of large stocks previously hoarded in anticipation of valorisation. When the Government attempted to dispose of some of its holdings, the market threatened to become further demoralised, creditors began to demand their money, no more funds could be raised on the security of coffee, and purchases had to be suspended. Thus, by the beginning of 1908, this attempt at valorisation ended; and São Paulo was rescued from bankruptcy by means of another loan, this time guaranteed, without qualification, by the Federal Government. Close on 7,000,000 bags of coffee, however, had to be dealt with; and arrangements had to be made for the handling of the subsequent output of the State. It was agreed to warehouse the holdings in New York and seven European ports, warrants to be deposited for them with specific banks which acted as trustees for the bondholders. The coffee was placed under the sole control of a committee of seven residents of the United States, or Europe, who had full power over its liquidation except for a proviso as to minimum sales during the subsequent ten or twelve years. The State of São Paulo had to raise its surtax on export and to guarantee the application of the proceeds solely to the payment of interest and sinking fund on the loan. It had also to agree to restrict coffee exports to specified amounts for succeeding years until the loan was finally paid off. The net results of this effort on the part of São Paulo to help its coffee producers to tide over a period of slack trade have been wholly bad. It is true that the Government's policy of giving preference in its purchases to the better grades of coffee stimulated efforts, already begun, to introduce more scientific methods of cultivation and preparation, but against that there has to be placed the serious injury done to the credit of the State and the imposition of the surtax on export, most of which seems to have been borne by the planters. Moreover, there is always a renewed demand for valorisation whenever output seems to be in excess of requirements;¹ and this is always a disturbing element interfering with the smooth and normal working of the world's coffee markets. That valorisation, if repeated on a large scale, is likely to be just as disastrous as it was in 1908, is indicated by the ease with which the United States

¹ E.g. in 1920, when valorisation through the medium of a loan of paper currency was talked of.

satisfied its requirements from Japan, Central America, and the East Indian Islands when the partial failure of the São Paulo crop of 1919 cut off a very large part of the normal supplies from Brazil. But the tradition remains of governmental interference with this trade in Brazil; and, from time to time, projects are put forward and carried which only just fall short of complete State guarantee or valorisation on a very large scale.¹

Reference has already been made to iron warrants, and to the growth of dealings in them in Glasgow and Middlesbrough. Ironmasters must always, to some extent, manufacture for stock. Furnaces once blown out or damped down are exceedingly expensive to re-start, and when in operation they must be run night as well as day. There is consequently, in the iron trade, no possibility of a speedy adjustment of output to a falling demand, and stocks quickly accumulate during periods of slack trade; for it is only when the depression is long continued that manufacturers venture to curtail the output. The amount of iron the makers can carry is limited. Therefore, after a short time they are forced to seek advances from their bankers or others on the stocks in hand. At first, about seventy years ago, the Scottish ironmasters sold notes to whoever would buy them. These were merely promises to deliver a certain quantity of iron to the bearer on presentation of the note and on payment of the accrued charges for storage. After a time it was found necessary to provide security, in addition to the maker's name; for firms in difficulties often raised money on notes for iron that did not exist. Therefore arrangements were made to hand over the iron to railway companies or to a store owned and managed by an independent firm, which issued warrants undertaking to deliver the iron to the bearer. The firm of Messrs. Connal & Co., Ltd., of Glasgow and Middlesbrough, secured the bulk of this business, with the result that their warrants became a marketable security all over the world. The warrants for Scottish iron were for 300 tons No. 1, and 200 tons No. 3; for Cleveland G.M.B. No. 3, 500 tons. One penny per ton per month was charged for rent or storage.

Having thus been rendered negotiable, iron warrants were readily accepted by the banks as security. Indeed, it was possible to obtain advances on them up to within a few shillings of their

¹ For detailed accounts of the course of events during the progress of the 1907-8 scheme, see *The Economist*, September to December 1908 inclusive. Reference may also be made to the annual reports of the New York Coffee Exchange and to Hutchinson, "Coffee 'Valorization' in Brazil," *Quarterly Journal of Economics*, vol. xxiii. pp. 528-35.

It would appear that, notwithstanding previous experience, the Brazilian Government, towards the close of 1921, was endeavouring once more to raise a loan in foreign centres for a coffee valorisation scheme. As American and European bankers were reluctant to help, the prospects of success were not good; but the wild speculation and the disturbance to trade caused by the proposal were very unsettling to Brazilian commerce and industry.

market value, with the result that dealers were enabled to hold a large number at a very small cost. The Glasgow Iron Market was established specifically to deal in these warrants ; and the Scottish store gradually increased until in the '90's of last century it contained more than one million tons of pig-iron.

About 1900 the Glasgow ironmasters decided that the existence of the store was not in their interests. They therefore ceased sending iron to it, with the result that it gradually became depleted until, about the period of maximum demand during the recent war, it practically disappeared altogether.

The store on the Tees for Cleveland iron had its origin about 1872-73, when the demand for iron was so great that the Scottish store was almost emptied. The Glasgow market, finding itself hampered for want of a sufficient supply of warrants, had resort to the comparatively new and growing output on the Tees ; and Messrs. Connal & Co., Ltd., the proprietors of the Glasgow Store, opened branch stores in Middlesbrough and district in 1876. Owing to various causes, from time to time the Tees stores became nearly exhausted ; and the Glasgow market was driven, in 1904, to accepting warrants for what it termed " standard " iron, in order to get the necessary number for the maintenance of speculative gambling. This " standard " iron was defined as certain brands, the list including Lincolnshire, Northamptonshire, and even American makes. Moreover, other iron that gave a certain defined analysis was admitted, with fixed differences for different qualities, but the effect of this was to destroy the value of the standard warrant ; for the grade became too wide and the place of delivery too uncertain and in nearly every case too inconvenient. Therefore, no sales of standard warrants for consumption could be effected, and comparatively little business was done in them. Hematite iron from Cumberland, to a small extent, formed a basis for warrants ; but the Cleveland hematite ironmakers, after a short trial, discontinued sending their output to the store. Shortage of pig-iron during the war depleted the Teeside stores also ; and at present there is no pig-iron there to act as the necessary basis for dealings in warrants.

From the fact that dealings in warrants originated in Glasgow, and have always been centred there, even after the decision of the Scottish ironmasters to boycott the store, the Glasgow Iron Market has long occupied a predominant position in the trade. It is constituted by the Scotch Pig Iron Trade Association, and meets twice daily, from eleven to twelve, and from two to three o'clock. There, warrants, when they were to be had, were bought and sold for forward delivery ; and thus transactions in them closely resembled dealings in futures in cotton and in wheat. This, of course, was a development independent of their original purpose, and it was always the cause of much heart-searchings on

the part of the ironmasters ; for, by putting their iron into store and depositing the documents with their bankers, they were able more easily to get advances than if they had kept it in their yard. On the other hand, it meant that they parted to some extent with control of the market ; for stocks and output were known, and it became possible, by skilful forecast of the course of trade, for dealers to establish corners, or at least, bring about a squeeze. Things became worse for the masters when dealers obtained possession of warrants in large numbers ; for then the iron in store was used to bid down the price of the new iron that was being sent forward for sale from the blast furnaces. When sale of warrants for forward delivery began, and dealings became quite disproportionate to the number in existence, speculation in iron by outsiders was encouraged to an extraordinary extent. The result was seen in the great exaggeration of all price movements, and the consequent disturbance to legitimate trade. It was, therefore, only to be expected that the ironmasters should come to the conclusion that the disadvantages of the system far outweighed the advantages.

Since dealing in iron warrants for future delivery has been compared to dealing in futures in wheat and in cotton, the question arises could speculation in warrants have been used like a purchase or sale of cotton or wheat futures for the purposes of protection by means of hedging transactions ? To this the answer may be given that, actually, dealings in iron warrants were rarely used for this purpose. Iron is not, like cotton and wheat, produced periodically, and a year's output required to be moved and handled during a limited season. It is produced regularly throughout the year, and is partly sold and partly used by the producers in their own works. There is, therefore, no necessity for devising any plan whereby a whole twelvemonth's output can be financed in advance of its production and sale. Moreover, pig-iron is not absolutely a raw material. It is partly manufactured, and is commercially in the position of wool tops or flour. The reasons which prevented the growth and development of dealings in futures in those cases apply also in its case, and the limited field in which dealings in iron warrants prevailed seems to indicate that they were always exceptional or abnormal. Their utility had further diminished in later years owing to amalgamations of firms and the growth of vertical combinations in the iron and steel industries. It is probable that they have now finally disappeared ; but doubts are expressed by some ironmasters as to whether the feeling against putting iron into store will be strong enough to resist the temptation, when production is temporarily in excess of demand, to place it where it can be readily hypothecated as security for loans.¹

¹ See Hood, *Iron*. Macrosty, "Speculation in the Iron Market," *Economic Journal*, vol. xv. pp. 340-60.

CHAPTER XII

SPOT AND C.I.F. BUSINESS IN COTTON AND WHEAT

HITHERTO attention has been confined mainly to the speculative aspect of the cotton and wheat trades and to discussion of the special part played by dealing in futures in the movements of those commodities. It is proposed now to examine, at greater length, the methods of the spot and c.i.f. markets, and to notice some of the problems that arise in the actual carrying out of the work of importers and exporters of these main staples of commerce.

In the case of the cotton trade, representatives of merchants and importers in Liverpool are sent abroad to the United States (or other cotton-growing centres) about the end of July or beginning of August, with instructions to buy those grades and standards that are likely to be in demand by the Lancashire spinners during the ensuing year. In some cases Liverpool brokers send their orders and offers direct to American buying houses which have centres in the larger towns in the cotton belt ; or samples, called types, may be submitted from America and offers cabled to importers. Continental houses often, in order to make certain of supplies later on, buy futures of the very distant months in Liverpool in the early part of the crop year and retain them until, perhaps, the month of maturity is reached. They then buy what they want in the United States about the date of requirement, and ship home immediately, selling off in Liverpool, at the same time, a corresponding amount of the futures previously purchased as hedges.

Cotton bought by buyers or their representatives in the interior markets of the Southern States of America may have to be collected from several points in order that a sufficient amount of the particular grade desired may be secured for export in a single shipment. Buyers may purchase either at "gin" or at "compress points," and the procedure, as regards financing, differs slightly in the two cases. At gin, the seeds are removed and the cotton is baled in packages of $28 \times 56 \times 42$ in. in size, weighing approximately 500 lb. including 20 lb. bagging and steel straps, thus having a density of about 14 lb. per cubic foot. If bought

at this stage the buyer issues tickets to the sellers, which are redeemed in cash by the local banker with whom arrangements have been made previously. When enough cotton is collected it is sent to a railroad "compress point" and the local railroad agent issues to the banker a bill of lading to the "compress point" in exchange for the tickets in the latter's possession. Payment is made to the local bank by means of a draft drawn by the buyer's agent upon the buyer's head office. This draft includes the price paid for the cotton, interest, and other charges of the local banker, who thus disappears from this particular transaction on forwarding the draft, with the local bills of lading attached, to the buyer's American head office for collection. When, along with other cotton similarly handled, enough is ready for a single shipment abroad, the buyer's banker, who now has the local bills of lading from point of origin to point of compress, exchanges them either for local bills of lading to the port of embarkation or for through bills of lading from the interior collecting centre to Liverpool.

At a "compress point" the cotton is sorted according to grade, is compressed and marked, the size being reduced to $28 \times 56 \times 18$ in., giving a density of a little under 30 lb. per cubic foot. If bought at this stage, compress receipts instead of the less formal tickets are delivered to the local banker who pays cash as instructed. These are then exchanged by the banker for local bills of lading to port, or for through bills of lading as the case may be. The latter are attached to the draft drawn by the buyer's agent on his head office; and thus, in due course, the local banker is reimbursed for the sums he has advanced.

If the person, hitherto called buyer, is a British importer or his agent he (or his American bank) is now in possession of the bills of lading of the cotton which is on its way to Liverpool, and the remainder of the financial side of this transaction has been already described. But if he is an American exporter, and if he sells to a European buyer, there is a greater choice of method of reimbursement. The usual method is for the European buyer to arrange, as in the manner described,¹ for his bank at home to accept, on his behalf, drafts drawn by the American exporters against cotton shipped for his account. These drafts are then sold to the foreign exchange dealers and the procedure follows quite the normal course. If the bank or foreign exchange dealer who holds the accepted draft wishes to realise before the date of payment, the bill can be discounted with a London bank or discount house on very easy terms. The American foreign exchange buyer receives, by cable every day, quotations at which such bills, going forward within a specified time, can be discounted; and it is upon that basis that he fixes the price he can afford to pay for the sterling bills

¹ In Chapter VII.

he buys. His calculation may be something like this (the figures are only approximate) :

Rate per £ sterling at which a sight draft on London can be sold		\$3'85
English stamp charges	0'0040	
Discount for 63 days at so much per cent.	0'0420	
Cost of collection	0'0010	
Margin of profit	0'0030	
	0'0500	0'05
		<u>3'80</u>

He, therefore, will be able to offer \$3'80 per £ sterling for a draft payable 60 days after sight.

A second method of reimbursement is the drawing of a draft upon the European importer direct and the holding of the acceptance and documents by the European correspondent of the American exporter until actual payment is made. This involves the storing, on arrival, of the cotton for the account of the American banker or foreign exchange dealer ; but the European buyer may at any time redeem it by tendering payment for the draft, less the rebate allowed for the number of days the draft has still to run before maturity. This rebate rate is usually, in England, 1 per cent. below the Bank of England rate at the moment, and on the Continent it is the actual bank rate. Such bills are not readily discounted, and only banks and exchange dealers with whole-hearted faith in the future of cotton prices, and with much free funds, will tie up money in transactions of this kind. It is possible, however, to render such bills "liquid" by arranging for acceptance by the European correspondent ; but this does not seem to be ordinarily done, and there are many obvious objections to the practice.

A small amount of cotton is imported from America by spinners direct, that is, without the intervention of merchants or brokers in Liverpool or Manchester. The sellers in these cases are usually American firms with an office in Manchester which serves as a selling agency and to watch the interests of the shippers. The bills of lading are handed over as soon as the shipper's draft is accepted by the buying spinner's bank, though, of course, the cotton may not arrive until some little time later. There are several disadvantages to the spinner in this way of doing business. If the cotton is not equal to sample, for example, it is difficult to settle with a firm which has a foreign domicile and all its assets abroad, and similarly with other claims that may arise, there is no arbitration body available to adjudicate : remedy is by legal action, and that, too, in a foreign country. Yet, with a well-established and reliable American firm, much business may be

conducted satisfactorily by this method, with considerable saving of commission fees.

Owing to the fact that the shippers of cotton from Alexandria are largely British houses who are well acquainted with the Lancashire spinners, Egyptian cotton, bought in Liverpool or Manchester, is commonly paid for by means of three months' bills drawn on the spinning company by the shipper in Alexandria. This is very rarely done in the American trade; for American exporters prefer to do their business by means of banks' acceptances.¹ It is evident that such an arrangement as the Egyptian is of considerable convenience, and a source, even, of financial gain to a spinning company; for, before the bill has to be met, the cotton may be spun into yarn, sold, and paid for. The mill, therefore, has the advantage of a larger balance at its bank for the remainder of the period the bill has to run. Buying on long terms and selling on short terms always strengthen the financial position of the firm that can do business in that way. There is a considerable spot business, however, in Egyptian cotton in Lancashire.

Indian cotton is handled largely by the Indian merchant houses who give credit to spinners on terms that are not standardised, but are varied to fit the circumstances of each transaction as it occurs.

In arranging for an import from an interior market in the Southern American States for sale in Liverpool as spot cotton, a difference must be allowed for of £10 to £15 in the price of each roo bales to cover cost of the freight and insurance. This works out at about 35 points, *i.e.* $\frac{35}{100}$ of *rd.* per lb.

Much of the cotton imported at Liverpool is bought on c.i.f. terms, the contract form for which is No. 10 or No. 11 of the set drawn up by the Liverpool Association, according as the shipment takes place from a seaport or from an interior market centre in America. The meaning of the various clauses and conditions is probably clear after the explanations already given of the previous stages in the movement of the commodity. One point, however, calls for comment, and that is the method of arriving at price.

In the Liverpool cotton c.i.f. contracts, two ways are employed of stating price, one, the ordinary straightforward method of naming the price in pence per lb. for the particular grade bought and sold, "fixed price"; the other, by settling it at so many points on or off the seller's price of a certain delivery, (Fully Middling American, L.M.C.) in Liverpool at the time of call, "on call." That means that the price is to be so many hundredths of *rd.* per lb. above or below the price of a certain

¹ See paper by Parkes, "Financing the Mills," *Report of World Cotton Conference, Liverpool and Manchester*, June, 1921.

month's futures (the basis grade of which is Fully Middling American cotton with the option of delivering grades down to and including Low Middling—L.M.C. signifies Low Middling Clause). Further, the day on which the price of the certain month's Fully Middling American is to be taken, is not arbitrary, but is determined in the case of each type of contract in a manner carefully prescribed.¹ This "on call" method has certain advantages, the most obvious being that in times of rapid fluctuation of price buyers and sellers do not find themselves dealing in contracts made only a short time before, at prices very different from those prevailing at the moment. Moreover, the system offers certain advantages to spinners, who can thus arrange for receipt of cotton at the very times they need it, and feel secure against loss resulting from price fluctuations; for, of course, they have in every case hedged by a previous purchase of futures.

The c.i.f. contract forms for Egyptian and East Indian cotton are similar to those for American cotton.

In the Liverpool spot market the selling brokers' representatives wait each morning in or about the Exchange to learn the day's probable requirements. The buying brokers, meantime, have learned from the spinners exactly what is needed and send their staffs to inform the sellers' representatives. Samples are then sent by the sellers to be submitted to the spinners, who are usually assisted in their selection by their brokers. As many as 70 to 100 different lots, all of the type required, may be available to choose from. If a price is agreed on, delivery is taken by the buying broker, who charges commission at the rate of $\frac{1}{4}$ per cent. of the gross value of the cotton, plus cartage and portorage charges which are fixed by rules of the association. The cotton is then forwarded to the spinning mill, where the bales are broken up. If any are found faulty, due claim is made upon the selling broker in accordance with the rules on the contract form.² The selling broker charges $\frac{1}{4}$ per cent. on the gross value of the cotton to the merchant on whose behalf he acts.

Spinners may also buy "on averages," that is, a broker forwards small samples (called "averages") to the spinner who makes a choice and sends a bid by telephone or telegraph. If an agreement is reached in this way, the same conditions apply as in spot transactions.

Cotton bought by one Liverpool house from another for resale on the market is called "Speculation," but if for export it is classed "Export." The buyers in these cases are responsible for furnishing the returns to the association, which, along with the returns of the spot sales, are posted up in the Exchange twice each day.

¹ See Rule 442, printed on the back of the forms, Appendix V.

² See Contract Form 1, Appendix V.

In addition to the ordinary direct sale and immediate delivery of spot cotton, either at fixed price or on call, contracts can be concluded (either at fixed price or on call) for Deferred Delivery Spot Cotton, Forward Delivery, Shipment, or Cotton "To Arrive." There is no particular difficulty calling for comment in these cases, and the conditions are identical with those of the ordinary spot contracts, with the addition of provisions dealing with questions arising out of loss or damage to cotton declared but not delivered under the terms of the contract.

The Liverpool Cotton Association demands that all cotton reaching Lancashire should be dealt in according to its rules and to no other. It is therefore only to be expected that its attitude towards the Manchester Cotton Association (established in 1894) should be a hostile one, and that at first it should have refused to co-operate on any terms with this newly-formed rival Manchester body. "The object of the foundation of the Manchester Cotton Association was to develop a competitive market in the interests of the cotton spinners, and to encourage spinners to buy upon c.i.f. terms instead of buying spot ex-warehouse Liverpool. It is calculated that on 100 bales of American cotton, c.i.f. delivered at Oldham *via* Manchester compared with 100 bales delivered *via* Liverpool there is, at present rates, a saving to the mill of over £10, and that, therefore, the advantages of direct shipment *via* the Manchester Ship Canal ought to ensure that course being largely followed by the managers of all the spinning companies."¹

In the Egyptian section, in normal times, more than one-half of the imports destined for Lancashire consumption are landed direct at Manchester. This is a natural consequence of the close relations existing between the Alexandria shippers and the home spinning companies; and the competition thus occasioned is sufficient to cause a rebate to be given on Egyptian cotton landed at Liverpool going forward to the Bolton area, where the greater part of this cotton is spun. The saving to the mill on cotton delivered *via* Manchester, compared with the Liverpool schedule rates is £11 11s. per 100 bales, and in order to attract any c.i.f. Egyptian cotton or even Egyptian spot cotton, Liverpool has to grant rebates to that amount.

In recent years a more accommodating spirit has prevailed between the two associations, and many matters of common concern to the trade have been discussed by representatives of both, with considerable benefit to the industry. There is, however, one point on which agreement hitherto has not been reached, and that is the question whether raw cotton, lying in Manchester, should be tenderable against Liverpool futures on the same terms as cotton lying in Liverpool itself. The Liverpool Association

¹ Statement published, June 1921, on behalf of the Manchester Cotton Association.

insists that cotton to be tenderable must be on the spot in Liverpool; while the Federation of Master Cotton Spinners' Associations and the Manchester Cotton Association maintain that it is a great injustice to the cotton mills to rule out the quite appreciable stocks held in Manchester as possible tender against futures contracts. Moreover, they point out that such a rule prevents them taking full advantage of the two competitive raw cotton markets and the two rival ports of Manchester and Liverpool.¹

In the discussion on corners it was pointed out that any rule limiting, either explicitly or implicitly, the quantity of produce tenderable against futures is undesirable, and renders manipulation easy. Therefore, on general grounds, the Liverpool Association is in this question acting against public interest. That this is so is further borne out by the traces of a squeeze that are often apparent in the enhancement of the current month's futures towards the end of the month, exactly parallel to the case of Chicago wheat, where the limitation of tenderable grain to that in specifically recognised elevators always produces the same effect. The fear that the Liverpool broker would suffer by the change is not well founded. He serves a useful purpose as agent and adviser to the mills that employ him; and his services are likely to be needed equally, whether the cotton comes to Manchester or to Liverpool.² The outstanding claim made for the Manchester Association is that it offers representation to the spinning interests which are entirely neglected in the Liverpool Association.

A market in cotton, with dealings in both spot and deferred delivery contracts but not in futures, has been in existence for some years at Osaka in Japan. Its ordinary meetings consist of two sessions, each lasting one hour, separated from one another by an interval also of one hour. During a session four officials, one representing the Government and the remainder representing commercial interests, sit on a platform at the end of the market room. Below them, on the floor, the brokers take up their positions in a space marked off by a barrier from that occupied by the general public. It is possible to communicate, across this barrier, with intending buyers and sellers. Bids and offers, at so many yen per bale, are made through the officials on the platform by means of a conventional code of signals; and at the

¹ In the autumn of 1921 the Manchester Ship Canal Company announced that if any cotton imported direct to Manchester is required for tenders against futures contracts in Liverpool it will carry it free of cost to Liverpool. It is anticipated that this action will prove a sound business proposition in stimulating direct cotton importation by canal to Manchester.

² For the whole question of the relations of the Liverpool and Manchester Cotton Associations to one another, see a statement published under the authority of the Manchester Association in the *Manchester Guardian* of June 17, 1921.

end of each period of ten minutes there is an interval of five or six minutes which is utilised in completing the clerical work involved in the transactions just concluded. There are, therefore, eight such periods on every market day. Where samples are not exhibited sale is by description or by grade; and disputes are settled by an arbitration committee appointed by a society to which all who handle cotton in Japan must subscribe. The varieties dealt in are mainly American and East Indian. (Of the total export of 276,926 tons from India in 1921 Japan received 165,857 tons.) All cotton reaching Japan is sold in this Osaka market; but Kobe is the distributing centre and the port where all the warehouses are situated.

On examining in greater detail than in Chapter VI. the wheat trade between, say, America and Liverpool, three classes of dealers can be distinguished through whose hands the grain may pass on its way from the interior markets to the dockside in England.¹ Suppose that Kansas wheat is being dealt in, the natural exporting point for which is one of the ports on the Gulf of Mexico (Galveston, Port Arthur, or New Orleans). The first class consists of those who buy wheat in centres like Kansas City, Wichita, and Hutchinson for delivery at Gulf ports, *i.e.* for delivery "on track" at a Gulf port, the charges up to this point consisting of the freight rate from place of purchase and of weighing and inspection fees on arrival at the Gulf. The second class includes those dealers who take over the wheat at the Gulf and sell it delivered in foreign countries. They are principally New York firms. The third class embraces those who buy wheat in the interior markets and sell it for delivery at foreign ports. This class also buys wheat "delivered at the Gulf," that is, purchases from the first class, and may even, in some cases, buy it f.o.b. at the Gulf as explained below.

When wheat arrives "on track," *i.e.* in railroad cars, at the Gulf it must be taken into an elevator and perhaps stored for a time before it can be loaded into the hold of a vessel. Loading charges amount to about $\frac{1}{2}$ of a cent per bushel, and other incidental expenses bring the figure up to 1 to 1 $\frac{1}{2}$ cents. This operation, which is called "fobbing," that is, placing the wheat f.o.b. (free on board) ship, may be undertaken by firms of the first class before they sell to the larger exporters; but as a rule these small houses sell their wheat on track and leave the fobbing to be performed by the exporter proper.

Wheat is mixed in the Gulf elevators during the fobbing operation, and this is done by forwarding agents on behalf of

¹ For much valuable information concerning the American export trade in wheat, see Kerr and Weld, "Prices of Wheat to Producers in Kansas, etc.," *House Document*, 1271, 63rd Congress, 3rd Session, p. 23 *et seq.*, Washington, 1915.

the smaller firms or by men specially maintained for the purpose in the case of the larger firms. Those exporters who carry through the complete work themselves, from buying in the interior markets to delivery in Liverpool or elsewhere, have necessarily to do their own fobbing, and to make allowance for its cost in the price charged the foreign importer. If the wheat has been bought "delivered at the Gulf" or f.o.b. from a dealer of the first class, the broker who carries through the sale is paid $\frac{1}{4}$ of a cent per bushel brokerage. This transaction takes place usually in New York or Chicago; for these are the markets used by the export houses at this stage, and a Kansas City firm, for instance, may find that its broker has sold to another Kansas City house which is exporting the wheat on a c.i.f. contract.

Practically all wheat imported by Liverpool buyers is bought on c.i.f. contracts; that is, insurance and freight charges are borne by the American exporter. The latter, therefore, has to fix his price sufficiently above the interior market price to cover all these additional expenses and leave something over for profit.

Selling c.i.f. involves several considerable risks for the exporter, only some of which can be insured against by hedging with futures as described in a previous chapter. Suppose the exporter cables an offer to a Liverpool firm. The Liverpool market is in being while it is night in the American centre, and it will be the following morning before an acceptance can be obtained. Meantime, what has happened in Liverpool during its market session may influence the market price in America on the date of receipt of acceptance; and thus the American merchant may have to buy his hedging futures at a price which was probably forecasted more correctly by the Liverpool house than by himself. Allowance, therefore, has to be made for possible fluctuations of this kind when offers are being made from America.

A second risk in the export business is the fluctuation of ocean freight rates, as well as the occasional impossibility of obtaining a ship or cargo space on any terms whatever; while a third risk, a very considerable one at present, is in the instability of foreign exchange rates, whose fluctuations are often sufficiently great completely to wipe out quite a large margin allowed for variation and for profit. The sale usually takes place in terms of sterling payable in London; and if the rate of exchange varies between the date of the wheat sale and the date of sale of the bill of exchange, there is an unforeseen loss or gain to the exporter.¹

Yet, risky though this business may appear to be, and notwithstanding the fact that it involves the tying up of much capital, it is conducted on exceedingly small margins. Not more than

¹ The recent development in banking, by which foreign exchange is sold forward, may now eliminate this particular portion of the risk.

2½ to 3 cents per bushel are allowed as gross margin by the exporter in making his bids, and out of this all the overhead expenses of the firm must be met. These are estimated to amount to one cent, leaving a net profit of 1½ to 2 cents per bushel, a figure which may be exceeded on some occasions, but may not be reached, even approximately, on others.

The table on p. 164 (taken from Kerr and Weld, *op. cit.*) shows, in detail, a few actual transactions of a large exporting house in July 1914, before normal transactions were upset by the recent European War.

The grade of wheat in all eight cases was the same, viz. No. 2 Hard.

In each case the wheat was bought "delivered at the Gulf," and was sold to be delivered c.i.f. Liverpool. The f.o.b. charges are rather low, 1¼ to 1½ cents being considered more probable; but owing to the fact that interest charges on cost of carrying may be included, it is impossible to quote this item accurately. Insurance, etc., is also lower for this particular house than it is in the case of most exporting houses; for it includes marine insurance only, while all shipments to the Continent, and many to the United Kingdom, carry in addition "insurance on out turn," that is, an insurance guaranteeing or protecting the delivery of the full amount that has to be landed at the foreign port under the contract.

United States wheat is exported mainly in the months of August, September, and October. It is consequently available on the Liverpool market in fairly large supply from September to the end of the year. After that, its arrival is intermittent. Canadian wheat begins to arrive in October, and is only in moderate supply during the winter and spring; but from June until August it comes in larger quantities.

The fact that the wheat-producing countries have very different climates, and the fact that some are located in the northern hemisphere and some in the southern, cause the flow of wheat to Liverpool to be fairly uniform throughout the year. Indeed, it is possible to regard some of the exporting countries, in the matter of supply, as complementary to others. For instance, Australian wheat, which begins to arrive during March, and is in constant supply until September, and Pacific Coast wheat (from Tacoma and Chili) taken together make a continuous stream of arrivals for most of the year; and an additional advantage in this case is the fact that the properties of these crops are very much alike. Again, Argentina wheat comes at a time (March to October) when the home-grown crops are approaching depletion; while the arrivals of Indian wheat between May and November also help in just the same manner. Russian wheat, when it was available, came from June until December in greatest abundance; but

ORGANISED PRODUCE MARKETS

	Date of sale.	Month of shipment.	Bushels.	Price delivered Liverpool.	Price delivered Galveston.	Total margin.	Costs.				Gross profit to exporter.	Approx. overhead expenses.	Estimated net profit to exporter.
							Ocean freight.	Insurance, etc.	F.o.b. charges.	Total.			
1	July 9	July	40,000	Cents. 92.75	Cents. 83.00	Cents. 9.75	Cents. 6.0	Cent. 0.5	Cent. 1.0	Cents. 7.5	Cents. 2.25	Cent. 1.0	Cents. 1.125
2	" 11	"	"	92.60	81.75	10.95	6.0	0.5	1.0	7.5	3.25	1.0	2.125
3	" 13	"	"	91.60	80.875	10.75	6.0	0.5	1.0	7.5	3.25	1.0	2.25
4	" 14	"	"	90.85	80.875	10.00	6.0	0.5	1.0	7.5	2.50	1.0	1.50
5	" 21	Sept.	24,000	94.65	84.625	10.00	7.5	0.5	1.0	9.0	1.0	1.0	0.0
6	" 12	Oct.	"	95.10	84.625	10.50	7.5	0.5	1.0	9.0	1.50	1.0	0.50
7	" 15	July	40,000	91.65	81.50	10.15	6.0	0.5	1.0	7.5	2.65	1.0	1.65
8	" 25	Oct.	24,000	98.70	88.50	10.20	7.5	0.5	1.0	9.0	1.20	1.0	0.20

during the rest of the year arrivals from the Black Sea used to be fairly considerable.

When the import trade in grain developed after the repeal of the Corn Laws, consignments by foreign houses for sale in England formed a large proportion of the shipments. These houses were few in number, being mainly old and well-known firms; and they sold directly, or by means of agents, in London especially, to their importing clients. The cargoes were large, and, at first, it was not the practice to subdivide them on sale into smaller units. The difficulty of disposing of such large lots to single individuals gradually brought about the custom of breaking up cargoes into what are termed "parcels." A parcel may consist of 1,000 to 5,000 quarters of wheat, or even more, and it is dealt in on the same terms as a cargo. The buyer takes up a c.i.f. contract, and the procedure is in almost every respect the same as in the case of a full cargo, the only difference being that a parcel of wheat or flour bought abroad must be shipped to a definite home port, and can be delivered at that port only and at no other. A cargo, on the other hand, may be sent to a port of call to await orders to discharge at any selected port at home or on the Continent. Recent amalgamations in milling interests, and the resulting concentration of demand in the hands of fewer and larger companies, are tending to destroy trade in parcels. In Liverpool, especially, it is now quite common for a few large shippers to buy abroad and, when the cargoes are due to arrive, to telephone offers round to the milling firms in the neighbourhood. In this way, much business is transacted without the intervention of brokers on the exchange—a fact of some importance as indicating a subsidiary consequence of the growth of combinations in the milling industry.

Examples of the standardised contract forms used in the import trade by members of the Liverpool Corn Trade Association, Limited, are given in Appendix IV. A few points call for comment.

The methods employed for fixing quality have been already discussed in Chapter II., but it is important to notice that the variation allowed by implication in the word "about" is laid down in the conditions to be the equivalent of 3*d.* per 480 lb. As regards quantity, the unit to which the price refers is usually a quarter, though occasionally a ton; and the total quantity purchased is measured in quarters, or statute tons, or metric tons (1,000 kilos) in the case of sale on the Continent. The cental (100 lb.) is also used as unit, both in Liverpool and on the Pacific coast of the United States. The quarter is not a fixed weight, but varies with the place of origin and kind of produce. There is consequently much confusion in statistical returns employing this unit; but the British Government Wheat Commission always used the quarter of 480 lb. as unit in its sales of

passage c.i.f. wheat during the period of control arising out of the war. It is to be hoped that uniformity may be attained as a result of legislation now pending; but the difficulties of inducing foreign centres to alter their long-established customs will be serious. A natural weight (so many lb. per bushel, for example) is often guaranteed, and both the London and Liverpool Associations have a specially designed machine for the speedy and accurate determination of this figure. As wheat and other grains may alter in weight during transport, the quantity shipped must necessarily be susceptible of a margin (5 per cent. more or less in the case of the River Plate form); but it is the quantity delivered that determines the amount to be paid.

Under the paragraph "Policies," marine insurance is provided for, and agreement reached as to whether "average" is for seller's or buyer's account.¹ Contracts for the carriage of goods on Atlantic voyages frequently incorporate the provisions of the Harter Act, a statute of the United States which prohibits clauses in freight contracts that relieve the shipowner from the duty to take care of the cargo and supply a seaworthy ship, but which provides that if the shipowner has exercised due care to make the vessel seaworthy he shall not be liable for damage or loss arising from faults or errors in navigation, or in the management of the vessel. The exact effect in English law of the incorporation of this Act in a charterparty is obscure,² but the general result seems to be to render the shipowner liable to make good certain loss not recoverable under the marine insurance policy, such as damage to the cargo by sea-water. In the case of the River Plate contract form, given in the Appendix, which, of course, contains no reference to the Harter Act, there is a clause agreeing that grain damaged by sea-water or otherwise is to be taken by buyer with an allowance for deterioration, based on contract price, to be fixed by arbitration in Liverpool. This condition is known as "Rye terms," and the contract form is headed accordingly. Loss from this cause, however, is often provided for in other ways. The Tale quale condition, for example, is that damage by sea water or otherwise, if any, is to be taken as sound, while the S/D condition prescribes that damage by sea-water, if any, is to be for seller's account. Many variants of these conditions are found.³

¹ For full discussion of average and average adjustment, see Arnould, *On the Law of Marine Insurance and Average*; or Scrutton, *Charterparties and Bills of Lading*.

² See Arnould, *op. cit.*, Section 918, p. 1155; and Scrutton, p. 100.

³ The adoption of the "The Hague Rules, 1921," which were drawn up as a result of a meeting of the Maritime Law Committee of the International Law Association held at Whitsuntide, 1921, may simplify the whole question of shipowners' and cargo owners' liability in respect of damage to goods in transit. These rules define the risks to be assumed by sea-carriers under a bill of lading, and it is hoped that they will become of universal application after January 1922.

CHAPTER XIII

MARKETING BY AUCTION

THE wholesale marketing and the distribution of certain articles of produce which (unlike cotton, wheat, and maize) have never become the subject of dealings in highly organised markets are effected in a variety of ways, of which sale by auction is one of the most important. The extent to which auction sales of produce have developed varies from country to country. They are most widespread, probably, in the United States, where efforts have been made to extend them to every kind of farm produce in the large wholesale markets in the cities. In London they form the normal method of wholesale dealing in imported wool and tea, and in some other commodities which just fall short of fulfilling the conditions requisite for more highly organised dealings on exchanges.

To be adapted for sale by auction, a commodity must, of course, be sufficiently abundant in supply to attract a fair number of buyers; indeed, the greater the degree of concentration of supply at a single centre the greater the probable success of the auctions, and the greater the number of buyers attracted to the sales. Without a large number of competing buyers there cannot be any success. Again, it is undesirable for sales by auction and sales by private treaty to compete with one another to any extent; for the continual disappointment that must necessarily ensue, owing to withdrawal of lots from auction, causes dissatisfaction to buyers, with resulting discredit to the auction market. For success, the auction system must dominate the trade, and attract the greater part of the available supply of the commodity and a large majority of the buyers. Hence, small consignments to scattered markets never sell well by auction. Possibly this is one reason why London's position as a distributing centre for wool and for tea is unassailable, and why attempts to establish important auction markets for these commodities elsewhere nearly always meet with failure.

An interesting fact with regard to the commodities sold by auction is that they are, as a rule, raised in districts remote from the markets where they are sold in this way, and that attempts to handle products raised close to the market have not often

succeeded. To such an extent is this the case that, in England, home-grown wool is often sold in the country fairs and local markets in the ordinary way, *i.e.* by bargaining between producers and buyers representing the manufacturing interests (while foreign wools are almost invariably sold by auction in Liverpool or in London). It would seem that direct business connections are easily established between buyers and producers when there is the possibility of intimate personal intercourse, and that the custom has grown up of many producers disposing of their clips, year after year, to the same buyers at, of course, the price set by the local market at the time of sale. But the main reason for the difference is the difficulty in the local markets of collecting the produce beforehand, and of entrusting its sale to one or two firms or individuals, who could then invite bids from buyers and institute a sale by auction. There are too many small producers to be considered in these local markets; and unless they pool their stocks, either by means of co-operative societies¹ or by employing the same auctioneer or selling agent, they are unable to offer to the buyers the united front which is needed on the part of suppliers, if sale by auction is to become general. (The fewer the individuals who control supply, and the fewer the sources of that supply, the more easily are sales by auction brought about. When supply has to come from abroad, it tends to get into the hands of a comparatively small number of expert importers or agents; and the conditions required for auction sales are thus very readily fulfilled.

(3) For handling by means of auction sales commodities need not be capable of that degree of standardisation that is required for dealing by grade in an organised market. The produce is in every case easily accessible or actually on view at the time of sale; and samples are usually obtainable a short time before. Yet standardisation of grade and package is of considerable importance, and, in the case of wool and tea, it is enforced as far as circumstances permit.² The more perishable the commodity the more necessary is standardisation for this purpose; but it is only in the United States that much progress has been made in the sale (by auction) of very perishable commodities in central markets in the large cities.

The world's total annual wool supply³ is not easy to estimate.

¹ The Agricultural Organisation Society (A.O.S.) is fostering the co-operative disposal of the English clip. It collects and classes the fleeces at local depôts, and then markets them at the local sales. Again, the flockmasters in Cumberland and Westmorland are arranging to sell wool in London by samples of 10 per cent. from each consignment, which usually represents one farmer's clip from a particular breed.

² When the British Government controlled the wool market during the war it attempted sales "on description," but without success.

³ See *Dalgety's Annual* for facts and information.

It is produced under such varying conditions in so many different countries in the world, and is spun and woven, in primitive home industries as well as with the latest aids of science in well-equipped factories, that it is not possible to make general statements without very wide qualifications. Yet, as regards marketing, some facts stand out clearly; and the bulk of the world's output follows a similar course year by year.

Beginning with the United Kingdom, which, in the West Riding of Yorkshire, possesses the world's most important woollen manufacturing district, the home output may be subdivided into the North of England clip, the rest of England, the Scottish, and the Irish clips. Each of these is marketed in a different manner. The North of England wools are usually purchased direct from the farmers after inspection on the farms by representatives of Bradford wool merchants. The Scottish clip changes hands at a series of sales and fairs, which begin at Leith in June, passing on thence to Glasgow which is a depôt for Cheviot and black-faced wools. These fairs are later on linked up with those in the middle and south of England, the series ending at Bristol in mid-September. Practically the same small group of Yorkshire merchants travel round to all; but here and there a strong local demand exists, in the West of England for example, and a district may possibly be left with its own market to itself. Irish wools are collected by the small country shopkeepers, who act as agents for Bradford merchants, and who, until recent years, used to pay the farmers in kind; but the growing importance of the Irish woollen mills and the increasing prosperity of the Irish farmers are making a change in this respect.

Each of the sales or fairs offers a wool with special characteristics of its own. The grades, therefore, are exceedingly numerous; but in a general way British wools may be classified into five broad classes—Lustres, Demi-Lustres, Downs, Half-breeds, and Mountain, each of which is again divisible into two chief sorts—Long and Short.

The conditions of purchase at the fairs or sales at which the Scottish and non-Northern English clips change hands are agreed on periodically by the British Wool Federation, the County Wool Merchants' Association, the Wales and Border Counties Wool-buyers' Association, the Auctioneers' Association, and the National Farmers' Union. The following were those agreed on for the 1920 clip:—

1. All wool to be sold by the pound, and no bids of less than $\frac{1}{4}d.$ to be taken.
2. All wool to be free of rent and at the auctioneer's risk until delivered to the railway company or carrier. Each purchaser shall, on the day of sale, give written instructions to the auctioneer for forwarding the lots purchased by him, and should he not do so,

the auctioneer shall be at liberty to forward it to the railway station, and to charge cost of storage and expenses to the buyer.

3. All wool to be weighed out.

4. An allowance of one-fourth shall be made for greys perceptible through the fleece, blacks and greasy in washed clips, and for greys perceptible throughout the fleece, and blacks in greasy clips (whether declared or not); also an allowance of 1s. 6d. each for cotts, or 25 per cent. on the whole lot complained of and found faulty. No locks shall be packed in the fleece.

5. Ninepence per sheet shall be paid by the buyer for the hire of same. The buyer shall return the sheets in good condition as soon as emptied, and on no account shall they be used privately. If sheets are not returned within four months of date of sale, the auctioneers shall invoice them to buyers at £1 per sheet, and 5s. each for lamb's wool bags, which sums shall be payable by the buyer.

6. Errors in weight or description, greys, cotts, cast, and greasies shall be rectified.

In case of errors in weight and description, a certificate by an independent person agreed to by the auctioneer and the buyer shall be accepted by the auctioneer.

Full allowance shall also be made for unfair package (which shall include clags, locks, tailing, or skin wool in either washed or unwashed fleeces).

7. All wool shall be exposed for sale in a manner which will permit a full inspection.

8. Drafts of 1 lb. per cwt. on gross weight shall be allowed by farmers and auctioneers.

The Bradford selling terms to be as before.

British wools are usually marketed by the "pack" of 240 lb. Statistics of recent years indicate that from one-tenth to one-fifth of the wool consumed in the United Kingdom is home grown, and that Australia, New Zealand, and South Africa contribute by far the larger amount of the balance. The position, therefore, of Australasian wool in the London auctions is an exceedingly important one; and in merinos it largely controls the market price.

Australasian wools are prepared and graded with considerable care. In shearing, it is the custom to separate off the inferior portions of the fleece at the very outset, and to make up in differently marked packages what are called the "firsts," "seconds," "clothing," and "combing," which are really the main body of the wool graded as to quality. When the Imperial Government purchased the several seasons' clips during the war, it was found necessary to recognise no less than 848 standards of quality in Australasian wools alone. Accordingly, anything like a general description of the classification is out of the question, and probably of interest only to those engaged in the actual trade.

Expert buyers who are able to estimate within one or two per cent. what the net yield will be from a mass of wool, grease,

dirt, seed, and sand, or from unwashed fleeces, the products of hot, dry countries are not many in number. It is calculated that they do not amount to more than a few hundred men in England, France, America, and Germany, taken together. Some of them visit Australia once a year to attend the auctions there; while the rest gather every two months in the Wool Auction Room in Coleman Street, London, E.C.

At one time, practically the whole of the Australasian clip was sold in London. Now about one-half to two-thirds is sold at home. There is still considerable discussion in the trade as to the merits of the rival markets; but generally the advantages and disadvantages turn on the question of quick or later sale. Those growers who wish a quick return, and are ready to forego the chance of higher prices later on, will sell at home. Those who think it worth while waiting for the later prices will consign their produce to London. The auctions in Australia follow one another in sequence in the chief coast towns, beginning with Sydney, and passing on to Tasmania after Brisbane. A similar rotation takes place in New Zealand. After purchase, the wool is shipped to the buyers in Europe or America in the ordinary way.

If the sale takes place in London the buyers spend the mornings in the dock and wharf warehouses, sampling the bales that have been sent there by the grower, or, more probably, by the bank that has financed the import up to that point. The auctions take place in the evenings, and are in the hands of a small group of selling brokers (about ten firms) who share the business among them. Bids are made and taken with extraordinary rapidity; and the fact that both buyers and sellers form small groups well known to one another results in business being done in a manner not readily comprehensible to an outsider. In addition to Australian wool, very large quantities of foreign and other wools find their way to London for sale by auction.¹

The selling brokers are, as a rule, paid a commission of $\frac{1}{2}$ per cent., which is an expense ultimately borne by the grower; and, in addition, they receive from the purchasers a fee of 1s. for each lot of wool that changes hands. Buying brokers are employed by those persons who do not buy in very large quantities. They are members, as a rule, of wool-dealing firms; but it is not uncommon for members of the selling firms to act occasionally in this capacity. Their fee is not standardised in the same way as the selling broker's fee, but $\frac{1}{2}$ per cent. is the average. Strict cash terms are the rule—payment within seven days, the wool to be removed from the warehouse within fourteen days. If it is not removed within the period allowed the selling broker may

¹ The London wool auctions, when attended by Continental buyers, occasionally resemble the American exchanges in respect of animation and excitement.

resell by auction or private contract, and debit the defaulting buyer with the resulting expenses and losses.¹

In Liverpool, East Indian wools, and a large variety of miscellaneous wools, like Egyptian, River Plate, Mohair, and Alpaca, are auctioned at stated periods; while on the Continent, Amsterdam, Havre, Hamburg, and Marseilles, are important market centres. The Antwerp wool sales used to include the bulk of the Spanish and Russian wools, and later, the South American wools. Sales were held six times a year, in January, March, April, June, September, and November, just a week before the London sales, with the object of catching the Continental buyers on their way to London.² The conditions are very similar to those prevailing in London.

One striking fact stands out in all these auction sales, and that is the very unequal demands for sorts of wool between which there is even only a small difference in quality. This seems to be accounted for by the narrow range of requirements of the several groups of consumers. Bradford buyers need sound lots embodying little waste; and the topmakers, or dealers, buy to make up complex blends, and are ready to take lots of a mixed character. German buyers require the finest merinos; and American buyers, on account of tariff restrictions, look for stuff on which there is only a small loss in the scouring process. Hence wools, differing in quality but slightly, are not substitutes for one another in the same way as are different qualities of wheat and of cotton. This fact, in conjunction with the almost unlimited number of varieties, has an obvious bearing on the question whether it is possible or not to establish an organised market in raw wool, with dealings in futures similar to the existing institutions in the case of wheat and cotton.

Tops (*i.e.* wool combed ready for spinning) are sold in England for deferred delivery, the topmaker undertaking to supply so many packs per week or per month for a given period at a fixed price. This imposes on the topmaker the necessity of laying in and holding a sufficient quantity of raw wool if he is not prepared to take the risk of his contract being rendered unprofitable by price fluctuations in the London auctions or the country sales. (It was just under such conditions that futures markets were evolved in wheat and in cotton; and it is, therefore, natural to inquire to what extent progress in that direction has taken place in the case of the markets for wool tops. In Bradford suggestions for further organisation have been rejected; but in Havre

¹ Clapham, *The Woollen and Worsted Industries*, Chap. III.

² The wool trade has not yet returned to the routine of pre-war days, which is that here described. Discrepancies in detail, therefore, may be detected between the text and present practice, but the general outline is accurate.

quotations for futures in raw wool are given from time to time, and in some other Continental centres there are organised markets for futures in tops. Yet it is true, on the whole, that neither in raw wool nor in tops is there a market comparable in organisation with even the least important of the main markets in grain or in cotton. This may be ascribed to the fact, in addition to others already referred to, that wool is combed into tops on commission, and what is bought by the wool spinner is not raw material, like the raw cotton of the cotton spinner, but tops, one stage removed from original raw material.

Professional speculation or expert risk-taking in the wool market is not differentiated from the other functions of the middleman. The class in the wool trade that might correspond to the class of expert member of the cotton exchanges has to assume responsibility for the performance of the first stage in the manufacturing process. That is sufficient to prevent it devoting all its energies to marketing and to developing the knowledge and skill that the expert risk-taker requires for the performance of his special duties.¹

The United States is the third largest wool-producing country in the world; but as it is also one of the greatest of the world's consumers it has to import an amount, on an average, equal to about one-half of its own total output. The fact that it is not an exporting country, and that, therefore, American bankers are not in the habit of financing wool movements,² has prevented the development of wool-auctions similar to those in Australia and the other wool-producing British Colonies. Therefore American wool is not marketed in any systematic manner, though attempts have been made recently to introduce improvement in this direction.³

United States wools coming from the States west of the Mississippi are known under the general term "territory," and they offer many sharp contrasts to the so-called "fleece" wools of the Eastern States. They are clipped from wool sheep, to a large extent, as distinct from the mutton or cross-bred sheep of the east; and flocks are large, and flockmasters keen business men. Consequently the characteristic form of sale is direct to buyers sent out by the wool merchants of Boston and Philadelphia, or

¹ There is a growing tendency, which is being encouraged by the Bradford Chamber of Commerce, for wool dealers to settle disputes by reference to arbitrators appointed by the Chamber. This movement will inevitably lead to an increased degree of standardisation in marketing conditions, a fact which may have far-reaching effects on the position of middlemen in the wool trade.

² The restrictions imposed by bankers on the methods of sale of wool on which they have made advances have been an important consideration in the establishment of the system of auction sales.

³ See Cherrington, "Some Aspects of the Wool Trade of the United States," *Quarterly Journal of Economics*, vol. xxv. pp. 337-56.

even sometimes by the mills on the Atlantic coast. These buyers get no help in their difficult work from centralised auctions or exchanges, and each has to depend on his own individual interpretation of the mass of information and estimates of clip available to him. It is not surprising, therefore, that they occasionally adopt reckless methods, and, as in 1909 for example, resort to the risky practice of buying wool "on the sheep's back" months before it is ready for shearing. An unusually heavy drop in prices in the winter before, combined with a subsequent rise, led many buyers to make large purchases of this kind, and to offer, even in February, prices for ungrown wool that would be considered good in normal years for high-grade clips. This kind of speculation is very unsafe, and meets with discouragement from the stable elements in the trade.

Attempts at baling and grading and consequent sale by sample have met with success in the case of wools grown in the Pacific coast States; but the most interesting development in the way of marketing is that in Eastern Oregon, where wool is sold on "sealed bids" submitted by the buyers on appointed days. Under this variant of the system of auction sales the submitted bids are binding on the bidders, but the grower may refuse all bids if he chooses to do so.

In 1894 a comprehensive attempt was made in New York to alter American methods of wool selling and buying by the introduction of the London system of public auctions.¹ Rules were drafted similar to those prevailing in the London sales. Quotations based on these sales were made public; and an attempt was made to group them under heads sufficiently descriptive to make them serve the purpose of wool buyers generally. Lack of uniformity, however, in American breeding and packing methods, and rather excessive handling costs at the various transfers, prevented the scheme being a success, and it was abandoned after three years' trial.

Less ambitious attempts to introduce the auction system were made at a later period² by the establishment of warehouses located at the eastern terminals of the trans-continental railroads, and managed as co-operative storage and sales depôts, where growers were to offer their clips direct to the manufacturers. Notwithstanding a certain amount of support from the Wool Growers' Associations, the auction bidding feature failed altogether; and sales are now made in the usual way to the same buyers as previously. New warehouses erected at Chicago and Boston, with space leased to merchants and dealers, seem to have met with some success; but in these cases the

¹ See National Association of Wool Manufacturers, *Bulletin*, September 1894, and December 1898.

² *Ibid.*, December 1908, December 1909.

companies have merely gone into the wool merchant business themselves, and have not made any attempts to change the ordinary methods, except in so far as they have imitated the Bradford Conditioning House plan of testing; by invariable standard methods and basing sales by wool merchants on certificates of quality thus obtained.

South American wools are sold in Buenos Aires, Monte Video, and Bahia Blanca from October to March. Sales take place by auction, the unit of weight being 10 kilogrammes, with payment at once in paper dollars. The buying is mainly on United States account.

As a consequence of after-war effects, the wool trade is passing through a crisis which cannot fail to leave permanent traces on methods of marketing, as well as on the whole course of business in the future. From 1917 to 1919, the British wool clips were purchased by the Government; and the detailed accuracy with which they were graded taught farmers and others the value of proper care in the get-up of their produce for market. Moreover, grades and types hitherto unsuspected were discovered in home-grown wool, and this is expected to result in a higher standard of blending. Australasian and South African wools were similarly dealt with; and the resulting surplus of these supplies in the autumn of 1920 afforded a difficult problem for both the Home and Colonial Governments. There is a growing manufacturing industry in Australia which may lead to a larger consumption of raw wool in that part of the world; but it is not anticipated that there will be any less for export, for there are still almost unlimited tracts of land available for the extension of sheep farming.

An association, the British Australian Wool Realisation Association (commonly referred to as "Bawra"), has been formed recently¹ to dispose of the very large quantities of Australasian wools that have accumulated, owing to the shipping difficulties during the war. It experimented with auction sales, in June 1921, of Australian wool in Liverpool, Hull, and other centres, but apparently with little success as regards prices obtained; for it was part of its policy to try and maintain a high level of prices and to withdraw all lots that did not reach a reserve price settled before the sale. The home clip of 1921 was not in a position at the opening of the season to command good prices; and competition from Canada was threatened in the British market. Canada used to be a wool-importing country; but much progress has been made there in the growing and preparation of wool for market, with the result that it is now in a position to consider sending bales to the United Kingdom and the Continent for disposal at the monthly auction sales at the centres here. Japan, which is developing a large woollen industry and importing

¹ It began operations in January 1921.

machinery therefor from Yorkshire, is now a buyer of Australian wool, and is likely to take a place of considerable importance, in the future, in the world's trade in this commodity.¹

✓ During 1919 and 1920 the United States Government conducted auction sales of wool acquired by it for war purposes, and there was much negotiation between the United Kingdom and the United States regarding stocks and prices. British Government wool was auctioned in Boston, sometimes with success, sometimes without eliciting a bid. The large stocks in hand have reacted seriously on the prices of the 1921 clip, and the Federal Reserve Board has drafted special regulations to enable its member banks to render wool growers exceptional aid in tiding over the transition period. Rules have also been drawn up dealing with the inspection and licensing of wool warehouses ✓ under the United States Warehouse Act, 1916, amended 1919. This Act, which is not mandatory, and applies as well to warehouses other than those handling wool, was passed with a view to bringing about the uniformity of warehouse receipts, and making them of the highest possible value as collateral security for loans advanced by bankers. By becoming one of the Federal warehousing system, a warehouse acquires a better standing, and is more highly regarded by bankers and depositors. In this way, ✓ American bankers may be rendered less reluctant to make advances on the security of wool stocks, and one great obstacle be removed from the path of United States wool merchants and growers. The establishing of official Federal wool grades is also ✓ foreshadowed when adequate experience has been obtained in the weighing and standardising of wool in these licensed storehouses.²

tea } The predominant position of the United Kingdom as a consumer of tea, and the large exports from the British possessions give the London tea auctions special importance in the marketing and distribution of that commodity. It is one exceptionally well

¹ As an example of reports of Australian auctions, the following, referring to sales on Monday, June 13, 1921, may be of interest:—

“ Sydney,

“ Monday.

“ At the wool sales held here to-day, 6,047 bales were offered of which 112 were sold. Private sales consisted of 4,468 bales. The market was very firm. Competition was keen, especially for carbonising sorts among Continental buyers. Japan continued to buy freely. Reuter.”

“ Melbourne,

“ Monday.

“ At to-day's wool sale, 2,421 bales were offered, out of which 2,278 were sold. Competition was very keen. Continental operators took the bulk at rates slightly above last week's closing prices.”

An Australian bale weighs about 350 to 330 lb.

² Circular No. 150 of the United States Department of Agriculture, issued July 1920.

fitted for handling by the system of auction sales. It is an important product reaching this country in large quantities at a time. It requires much expert knowledge on the part of dealers; and it is a commodity whose grades or qualities are very great in number. Moreover, differences of taste in different parts of the kingdom are very marked; and one variety is not in any way a substitute for another, so that, somewhat as in the case of wool, there is often marked dissimilarity in the demand for qualities very closely allied to one another.

Teas are divided broadly into Indian, Ceylon, China, and Java varieties. These in turn are subdivided into classes named, in some cases, after the district where the crop is grown. There are, therefore, in the case of Indian teas, Darjeeling, Assam, Dooars, Syhlet, Travancore, and Cachar among others; while in the case of China teas, the number of distinct varieties is almost beyond reckoning. There are "Black Leafs" or Monings, which includes Kintuck, Keemun, Ningchow, and hosts of others; and "Red Leafs" or Kaisows, which include Panyong, Ching Wo, Pecco Congou, etc. Then there are better known sorts, like Lapsang, Souchong, and Oolong, in addition to fancy and green teas like Caper and Scented Orange Pekoe and Green Fannings, the latter coming from Ceylon. For blending purposes, even the soil and elevation of the garden where the tea is grown have to be reckoned with; and in the catalogues prepared for the auction sales the name of the estate or garden, where possible, is always added to the other information given.

When the tea reaches London it is at once stored in a public bonded warehouse, where it is weighed by the Customs authorities and retained, pending the sale and payment of duty. The importer, or his agent, then selects a broker, to whom instructions are given to sell at the public sales in Mincing Lane. Occasionally a sale by private contract is effected; but public auction is the more usual method. The selling broker then compiles and issues catalogues to all the large wholesale buyers, indicating the teas that are to be sold, the warehouse or warehouses where they are, the garden or gardens where they have been grown, the quantity and description of each grade, and the conditions of sale and payment. Notification at the same time is sent to the warehouse that the tea is to be offered at a public sale; and it is the duty of the storekeeper to grant facilities to possible purchasers for the sampling of the various brands. This is done by putting aside representative packages of each lot. Samplers then go round on behalf of the various large wholesale houses intending to buy, and obtain a small sample, giving in return a packet of equal weight and quality, so that the owner may suffer no loss.

On obtaining these samples the tasters of the wholesale houses

begin their work and pass judgment on the qualities of the brands offered for sale. In an ordinary season there may be as many as 1,200 different Indian teas to be sampled and valued in this manner; but it is not always necessary that the tasting process should be carried through in every case. It may happen that just common tea of no particular or special merit is required, and in that case the buyer judges by the appearance of the leaf and by smell, values "on the nose," as the phrase is. When a decision is finally reached orders are placed at once with the selling brokers, so that the bids submitted may be "first in." This is to avoid the difficulty that would arise at the public auction if several buyers simultaneously made the same bid and none were prepared to go higher.

At the actual sales the teas are sold at so much per lb., advances being made by $\frac{1}{2}$ d. Procedure is rapid, and the very full and comprehensive catalogues issued previously enable the selling broker to dispense with all speech-making and the other trappings of the popular auction-room. When the season is at its height, Indian teas are sold twice a week, on Monday and on Wednesday, Monday being the more important day. Ceylon teas are sold on Tuesday, China teas on Wednesday, and Java teas on Thursday. China teas differ so greatly in taste from Indian that a different buyer is nearly always employed. There is, therefore, no interference with the Indian sales that take place on the same day.

After [Perhaps it is on account of its insignificance in comparison with the coffee trade of New York, Havre, and other centres, that the London coffee trade has hitherto failed to institute an exchange, and has contented itself with the system of auction sales; for (in the case of coffee) all the conditions requisite for the successful conduct of an organised market are present, with the single exception that, in London, the volume of dealings is too small to occupy the full time of a sufficiently large body of experts, and to pay the necessary expenses of maintaining a separate organisation with all the equipment of committees and a clearing house.¹

When a coffee cargo reaches London it is placed in certain specified public bonded wharves and warehouses and cleaned, if necessary. It arrives, of course, in bags, but each parcel is bulked separately so that one sample may be representative of the whole. The samples taken vary in quantity according to the size of the parcel, which is then refilled into the bags, the latter being weighed at this stage for the Customs registration. The coffee is now ready for sale. Occasionally there is purchase and sale by private contract; but the normal course is by public auction in

¹ There is, however, some business in coffee futures conducted through the medium of the London Produce Clearing House, Ltd. See Chap. XI.

Mincing Lane.¹ On the morning of the sale, or possibly on the day preceding, the samples are shown in small trays in the brokers' sale-rooms; and specimens are given to the wholesale dealers for roasting and tasting. The sales then take place at 1.30 p.m. The comparatively small interval of time allowed buyers for the test of quality and the very great variety offered at a single sale (often 150 to 200 different parcels being submitted) demand considerable skill on the part of purchasers who, as a rule, select only a few kinds by inspection before instituting the further test. If the coffee is Brazilian, imported by way of New York, it has already been carefully graded; but as a rule coffee reaching London comes direct from the place of origin. The method of procedure at the auction sale itself is the same as in the case of tea. Bids are in shillings and pence per cwt., payment within thirty days, brokerage $\frac{1}{2}$ per cent. from both buyer and seller.

In the American States of Virginia, North Carolina, and South Carolina, tobacco is sold by auction at quite an early stage in its passage from producer to consumer.² Warehouses have been established at central points to which growers bring the tobacco they have for sale. After being graded, it is piled in heaps on the warehouse floor, where it can be inspected by prospective buyers. Sales are held in the warehouses from time to time, and the maximum fees charged by the proprietors are in one State, at least (North Carolina), prescribed by law.

In the last few years there has been an extension of the auction system to the more perishable farm products in terminal markets established in cities in the United States and on the Continent. In the former country, management is largely in the hands of privately incorporated auction companies, though Government action is not unknown; but on the Continent control is always vested exclusively in the municipality in whose area the market is situated.

Where municipal or Government control exists, the sales are conducted by officials who are forbidden to be interested financially, either directly or indirectly, in the trade of market commodities of any kind. Commission fees are definitely fixed at an exceedingly reasonable level, and the advantages accruing, both to producers and consumers, are claimed to be considerable.³

An American consul, writing of the Lyons market, says that "fish and game are brought for sale from England, Germany, the Netherlands, Russia, and from all parts of France. If a grocer

¹ Most of the Brazilian coffee, in contrast with other varieties reaching London, is handled either on c.i.f. contracts or on contracts registered with the London Produce Clearing House, Ltd.

² Holmes, "Systems of Marketing Farm Products, and Demand for such Products at Trade Centres," *Report No. 98 of United States Department of Agriculture*, 1913.

³ See *United States Special Consular Reports*, vol. xliii.

Tobacco

or butcher anywhere in France, in fact, anywhere in Europe outside of Lyons, has an overstock of any kind of provision, he is always sure he can get rid of it at the central auction in Lyons. Often a stock of provisions is sold here at private sale by correspondence for and to parties outside the city." Another report on the Berlin municipal market states that "the municipal sales commissioners are bonded officials who are forbidden to be interested, directly or indirectly, in the trade market wares of any kind. They are responsible to the market hall management, and are allowed to collect a certain fixed percentage on all sales made. The primary purpose of these officers is to offer distant dealers and producers opportunity to send in their wares, and have them brought into the hands of Berlin dealers and consumers, through the agency of responsible middlemen and with the assurance of a published and steady price. A second or indirect purpose is that, through their competition with the private wholesale dealers and through the daily publication of their report of the average wholesale prices for all wares and at all the halls, the municipal sales commissioners may exercise a steadying influence upon the entire wholesale business. Although it is estimated that they handle only about one-fifth of the total wares received at the central market-hall, it is, nevertheless, conceded that they indirectly prevent extortion by the private wholesale dealer from the producer or small dealer on the one hand, and from the consumer or retailer on the other. Describing the results attained in Lyons, the consul's report goes on to say that "this market is most emphatically favourable to the poorer classes. Many poor people bid off a bunch of game or fish, dividing the expense among themselves, thus procuring a luxury that they could not otherwise enjoy. It creates a centre in the city to which food comes from many points, largely increasing the supply. It reduces the prices to retail dealers in the market, and sharpens competition. The auctions are always public, and the woman who buys from a small dealer often knows just how much the dealer paid for the articles in the market that morning."

Result

About the years 1913 and 1914 there was considerable popular agitation in the United States on the supposed wastefulness and inefficiency of marketing methods, particularly in respect of the more perishable farm products. It was at this time that the New York law was passed establishing a Department of Food and Markets with power to institute auction markets in such cities of the State as was deemed desirable. Goods consigned to such markets are, in accordance with the provisions of the law, to be auctioned by licensed auctioneers, appointed by the department, at commission rates fixed by that authority which is also to receive 3 per cent. of the gross selling price as a contribution towards the expenses of management. The Mayor's Market

Commission of New York City was also attracted at the same time by the idea that auction sales would help to keep down prices to the consumer; and it recommended in its report in 1913 that "sales at auction be made permissive in the several public markets," and that they be conducted by "bonded auctioneers, licensed by the city, to whom goods could be consigned by persons who desired to sell their goods at auction." The commission did not think it likely that a large percentage of the produce reaching the city would be sold in this way; but it considered that even a small number of such sales would tend to steady prices and serve to fix the market prices for each day in the manner described in the consular reports on the European markets. Difficulties not foreseen at the time have arisen to prevent the full realisation of the elaborate schemes anticipated in these reports and legislation; and privately incorporated auction companies still do a very large part of the wholesale distribution of fruit and other commodities in the larger American cities.

These auction companies receive and inspect goods on their arrival at the place of auction, divide them into lots, print and circulate catalogues, and collect the money from the buyers on behalf of the sellers. Payments are prompt on every side, and only to a very small extent is there any financing of producers or owners of produce by the companies. They obtain their income from the commissions charged for selling and for whatever other services they may render, such as unloading, preparing samples, and printing catalogues. Many questions arise in connection with their operation, such as, for example, the commission rates charged to large and to small consigners, secret rebates, the degree of monopoly they are able to obtain, and the extent to which this power enables them to raise charges for the extra handling they may undertake of some classes of commodities. Again, the question of ownership of their shares has some bearing on their conduct; for it is obvious that there are possibilities of abuse if the chief purchasers at the sales are also their controlling shareholders and managers. There is, therefore, some reason for the opinion expressed by one large American merchant who writes, "An auction company should be under public service regulation if it is to be successful in the smaller places where there is no competition, and I believe in the larger places also the rates, rebates, and all other practices should be open to the public and under control of the municipality."¹

In the United Kingdom public auctioneers of the type contemplated in this American legislation, and actually in existence on the Continent, are quite unknown. Many municipalities, however, provide market places where stands or positions can be rented by auctioneering firms; and in some towns a fair amount of business

¹ Quoted from Weld, *The Marketing of Farm Products*, p. 141.

is done in this way. The Dublin cattle market is a case in point. There, frequent auction sales are held, in the early morning, of live fat cattle consigned from the rich grazing lands in the east of Ireland. The buyers are mainly English dealers who ship their purchases the same day to Birkenhead, which is an important distributing centre in the meat trade for a very populous part of England. But much business, even in cattle in Dublin, is done by ordinary higgling ; and auction sales cannot be regarded as normal in any municipal market in the United Kingdom.

APPENDIX I

THE CAPPER-TINCHER ACT (U.S.A.).

[PUBLIC—No. 66—67TH CONGRESS.]

[H. R. 5676.]

AN Act Taxing contracts for the sale of grain for future delivery, and options for such contracts, and providing for the regulation of boards of trade, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act shall be known by the short title of "The Future Trading Act."

SECT. 2. That for the purposes of this Act "contract of sale" shall be held to include sales, agreements of sale, and agreements to sell. That the word "person" shall be construed to import the plural or singular and shall include individuals, associations, partnerships, corporations and trusts. That the word "grain" shall be construed to mean wheat, corn, oats, barley, rye, flax, and sorghum. The term "future delivery," as used herein, shall not include any sale of cash grain for deferred shipment or delivery. The words "board of trade" shall be held to include and mean any exchange or association, whether incorporated or unincorporated, of persons who shall be engaged in the business of buying or selling grain or receiving the same for sale on consignment. The act, omission, or failure of any official, agent, or other person acting for any individual, association, partnership, corporation, or trust within the scope of his employment or office shall be deemed the act, omission, or failure of such individual, association, partnership, corporation, or trust, as well as of such official, agent, or other person.

SECT. 3. That in addition to the taxes now imposed by law there is hereby levied a tax amounting to 20 cents per bushel on each bushel involved therein, whether the actual commodity is intended to be delivered or only nominally referred to, upon each and every privilege or option for a contract either of purchase or sale of grain, intending hereby to tax only the transactions known to the trade as "privileges," "bids," "offers," "puts and calls," "indemnities," or "ups and downs."

SECT. 4. That in addition to the taxes now imposed by law there is hereby levied a tax of 20 cents a bushel on every bushel involved therein, upon each contract of sale of grain for future delivery except—

(a) Where the seller is at the time of the making of such contract the owner of the actual physical property covered thereby, or is the grower thereof, or in case either party to the contract is the owner or renter of land on which the same is to be grown, or is an association of such owners, or growers of grain, or of such owners or renters of land; or

(b) Where such contracts are made by or through a member of a board of trade which has been designated by the Secretary of Agriculture as a "contract market," as hereinafter provided, and if such contract is evidenced by a memorandum in writing which shows the date, the parties to such contract and their addresses, the property covered and its price, and the terms of delivery, and provided that each board member shall keep such memorandum for a period of three years from the date thereof, or for a

longer period if the Secretary of Agriculture shall so direct, which record shall at all times be open to the inspection of any representative of the United States Department of Agriculture or the United States Department of Justice.

SECT. 5. That the Secretary of Agriculture is hereby authorised and directed to designate boards of trade as "contract markets" when, and only when, such boards of trade comply with the following conditions and requirements:—

(a) When located at a terminal market upon which cash grain is sold in sufficient volumes and under such conditions as fairly to reflect the general value of the grain and the difference in value between the various grades of grain, and having recognised official weighing and inspection service.

(b) When the governing board thereof provides for the making and filing, by the board or any member thereof, as the Secretary of Agriculture may direct, of reports in accordance with the rules and regulations, and in such manner and form and at such times as may be prescribed by the Secretary of Agriculture, showing the details and terms of all transactions entered into by the board, or the members thereof, either in cash transactions consummated at, on, or in a board of trade, or transactions for future delivery, and when such governing board provides, in accordance with such rules and regulations, for the keeping of a record by the board or the members of the board of trade, as the Secretary of Agriculture may direct, showing the details and terms of all cash and future transactions entered into by them, consummated at, on, or in a board of trade, such record to be in permanent form, showing the parties to all such transactions, any assignments or transfers thereof, with the parties thereto, and the manner in which said transactions are fulfilled, discharged, or terminated. Such record shall be required to be kept for a period of three years from the date thereof, or for a longer period if the Secretary of Agriculture shall so direct, and shall at all times be open to the inspection of any representative of the United States Department of Agriculture or United States Department of Justice.

(c) When the governing board thereof prevents the dissemination, by the board or any member thereof, of false, misleading, or inaccurate report, concerning crop or market information or conditions that affect or tend to affect the price of commodities.

(d) When the governing board thereof provides for the prevention of manipulation of prices, or the cornering of any grain, by the dealers or operators upon such board.

(e) When the governing board thereof admits to membership thereof and all privileges thereon on such boards of trade any duly authorised representative of any lawfully formed and conducted co-operative associations of producers having adequate financial responsibility: *Provided*, That no rule of a contract market against rebating commissions shall apply to the distribution of earnings among the *bonâ fide* members of any such co-operative association.

(f) When the governing board shall provide for making effective the final orders or decisions entered pursuant to the provisions of paragraph (b) section 6 of this Act.

SECT. 6. That any board of trade desiring to be designated a "contract market" shall make application to the Secretary of Agriculture for such designation and accompany the same with a showing that it complies with the above conditions, and with a sufficient assurance that it will continue to comply with the above requirements.

(a) A commission composed of the Secretary of Agriculture, the Secretary of Commerce, and the Attorney-General is authorised to suspend for a period not to exceed six months or to revoke the designation of any board of trade as a "contract market" upon a showing that such board

of trade has failed or is failing to comply with the above requirements or is not enforcing its rules of government made a condition of its designation as set forth in section 5. Such suspension or revocation shall only be after a notice to the officers of the board of trade affected and upon a hearing: *Provided*, That such suspension or revocation shall be final and conclusive unless within fifteen days after such suspension or revocation by the said commission such board of trade appeals to the circuit court of appeals for the circuit in which it has its principal place of business by filing with the clerk of such court a written petition praying that the order of the said commission be set aside or modified in the manner stated in the petition, together with a bond in such sum as the court may determine, conditioned that such board of trade will pay the costs of the proceedings if the court so directs. The clerk of the court in which such a petition is filed shall immediately cause a copy thereof to be delivered to the Secretary of Agriculture, chairman of said commission, or any member thereof, and the said commission shall forthwith prepare, certify, and file in the court a full and accurate transcript of the record in such proceedings, including the notice to the board of trade, a copy of the charges, the evidence, and the report and order. The testimony and evidence taken or submitted before the said commission duly certified and filed as aforesaid as a part of the record, shall be considered by the court as the evidence in the case. The proceedings in such cases in the circuit court of appeals shall be made a preferred cause and shall be expedited in every way. Such a court may affirm or set aside the order of the said commission or may direct it to modify its order. No such order of the said commission shall be modified or set aside by the circuit court of appeals unless it is shown by the board of trade that the order is unsupported by the weight of the evidence or was issued without due notice and a reasonable opportunity having been afforded to such board of trade for a hearing, or infringes the Constitution of the United States, or is beyond the jurisdiction of said commission: *Provided further*, That if the Secretary of Agriculture shall refuse to designate as a contract market any board of trade that has made application therefor, then such board of trade may appeal from such refusal to the commission described therein, consisting of the Secretary of Agriculture, the Secretary of Commerce, and the Attorney General of the United States, with the right to appeal as provided for in other cases in this section, the decision on such appeal to be final and binding on all parties interested.

(b) That if the Secretary of Agriculture has reason to believe that any person is violating any of the provisions of this Act, or is attempting to manipulate the market price of any grain in violation of the provisions of section 5 hereof, or of any of the rules or regulations made pursuant to its requirements, he may serve upon such person a complaint stating his charge in that respect, to which complaint shall be attached or contained therein a notice of hearing, specifying a day and place not less than three days after the service thereof, requiring such person to show cause why an order should not be made directing that all contract markets until further notice of the said commission refuse all trading privileges thereon to such person. Said hearing may be held in Washington, District of Columbia, or elsewhere, before the said commission, or before a referee designated by the Secretary of Agriculture, who shall cause all evidence to be reduced to writing and forthwith transmit the same to the Secretary of Agriculture as chairman of the said commission. That for the purpose of securing effective enforcement of the provisions of this Act the provisions, including penalties, of section 12 of the Interstate Commerce Act, as amended, relating to the attendance and testimony of witnesses, the production of documentary evidence, and the immunity of witnesses, are made applicable to the power, jurisdiction, and authority of the Secretary of Agriculture, the said commission, or said referee in proceedings under this Act, and to persons subject to its provisions. Upon evidence received the said

commission may require all contract markets to refuse such person all trading privileges thereon for such period as may be specified in said order. Notice of such order shall be sent forthwith by registered mail or delivered to the offending person and to the governing boards of said contract markets. After the issuance of the order by the commission, as aforesaid, the person against whom it is issued may obtain a review of such order or such other equitable relief as to the court may seem just by filing in the United States circuit court of appeals of the circuit in which the petitioner is doing business a written petition praying that the order of the commission be set aside. A copy of such petition shall be forthwith served upon the commission by delivering such copy to its chairman, or to any member thereof, and thereupon the commission shall forthwith certify and file in the court a transcript of the record theretofore made, including evidence received. Upon the filing of the transcript the court shall have jurisdiction to affirm, to set aside, or modify the order of the commission, and the findings of the commission as to the facts, if supported by the weight of evidence, shall in like manner be conclusive. In proceedings under paragraphs (a) and (b) the judgment and decree of the court shall be final, except that the same shall be subject to review by the Supreme Court upon *certiorari*, as provided in section 240 of the Judicial Code.

SECT. 7. That the tax provided for herein shall be paid by the seller, and such tax shall be collected either by the affixing of stamps or by such other method as may have been prescribed by the Secretary of the Treasury by regulations, and such regulations shall be published at such times and in such manner as shall be determined by the Secretary of the Treasury.

SECT. 8. That any board of trade that has been designated a contract market, in the manner herein provided, may have such designation vacated and set aside by giving notice in writing to the Secretary of Agriculture requesting that its designation as a contract market be vacated, which notice shall be served at least ninety days prior to the date named therein, as the date when the vacation of designation shall take effect. Upon receipt of such notice the Secretary of Agriculture shall forthwith order the vacation of the designation of such board of trade as a contract market, effective upon the day named in the notice, and shall forthwith send a copy of the notice and his order to all other contract markets. From and after the date upon which the vacation became effective, the said board of trade can thereafter be designated again a contract market by making application to the Secretary of Agriculture in the manner herein provided for an original application.

SECT. 9. That the Secretary of Agriculture may make such investigations as he may deem necessary to ascertain the facts regarding the operations of boards of trade and may publish from time to time, in his discretion, the result of such investigation, and such statistical information gathered therefrom, as he may deem of interest to the public, except data and information which would separately disclose the business transactions of any person, and trade secrets or names of customers: *Provided*, That nothing in this section shall be construed to prohibit the Secretary of Agriculture from making or issuing such reports as he may deem necessary, relative to the conduct of any board of trade, or of the transactions of any person found guilty of violating the provisions of this Act under the proceedings prescribed in section 6 of this Act: *Provided further*, That the Secretary of Agriculture in any report may include the facts as to any actual transaction. The Secretary of Agriculture, upon his own initiative or in co-operation with existing governmental agencies, shall investigate marketing conditions of grain and grain products, and by-products, including supply and demand for these commodities, cost to the consumer, and handling and transportation charges. He shall likewise compile and furnish to producers, consumers, and distributors, by means of regular or special reports, or by such methods as he may deem most effective,

information respecting the grain markets, together with information on supply, demand, prices, and other conditions, in this and other countries that affect the markets.

SECT. 10. That any person who shall fail to evidence any such contract by a memorandum in writing, or to keep the record, or make a report, or who shall fail to pay the tax, as provided in sections 4 and 5 hereof, or who shall fail to pay the tax required in section 3 hereof, shall pay in addition to the tax a penalty equal to 50 per centum of the tax levied against him under this Act and shall be guilty of a misdemeanor, and upon conviction thereof, be fined not more than \$10,000 or imprisoned for not more than one year, or both, together with the costs of prosecution.

SECT. 11. That if any provision of this Act or the application thereof to any person or circumstances is held invalid, the validity of the remainder of the Act and of the application of such provision to other persons and circumstances shall not be affected thereby.

SECT. 12. That no tax shall be imposed by this Act within four months after its passage, and no fine, imprisonment, or other penalty shall be enforced for any violation of this Act occurring within four months after its passage.

SECT. 13. The Secretary of Agriculture may co-operate with any department or agency of the Government, any State, Territory, District, or possession, or department, agency or political subdivision thereof, or any person; and shall have the power to appoint, remove, and fix the compensation of such officers and employees, not in conflict with existing law, and make such expenditures for rent outside the District of Columbia, printing, telegrams, telephones, law books, books of reference, periodicals, furniture, stationery, office equipment, travel, and other supplies and expenses as shall be necessary to the administration of this Act in the District of Columbia and elsewhere, and there is hereby authorised to be appropriated, out of any moneys in the Treasury not otherwise appropriated, such sums as may be necessary for such purposes.

Approved, August 24, 1921.

APPENDIX II

EXAMPLE OF MARKET REPORT.

From the *Manchester Guardian* of June 21, 1921.

LIVERPOOL COTTON.

AMERICAN SPOT PRICES REDUCED 43 POINTS; FULLY MIDDLING 76^{9d}.—
AMERICAN FUTURES BARELY STEADY; 48 TO 39 POINTS LOWER—
GENERAL LIQUIDATION ON LABOUR OUTLOOK—CONSIDERABLE WEAK-
NESS IN AMERICAN MARKET—EGYPTIAN FUTURES WEAK, 80 TO 75
POINTS LOWER.

Liverpool, Monday.

CONSIDERABLE activity has again prevailed in the futures market, resulting in a severe depreciation of values since the close last week. American weakness, caused largely through our home labour difficulties in addition to domestic troubles in the United States, has proved too heavy a weight for this market to sustain, and wholesale liquidation has fallen upon us

from widespread interests. The complete inability of European mills to consume anything approaching a normal quantity of the raw material under present circumstances is amply demonstrated by the small spinners' takings, according to last week's official statistics, which show that the visible supply of American gained 7,000 bales on the week, against a loss last year of 113,000 bales. Recent estimates of a carry-over of over ten million bales have also confirmed the bearish tendency of the moment, and the tone in Liverpool can only be described as distinctly nervous.

To-day's spot sales were estimated at 3,000 bales, including 2,300 American (300 for export), 50 Egyptian, 150 East Indian, and 500 Peruvian. American was in retail request, and quotations were reduced 43 points; fully middling 7'69*d*. Egyptian was neglected, and quotations were reduced 50 points; fully good fair Sakellaridis 15'50*d*. East Indian was quiet, but in sympathy with American quotations were reduced 15 points; fully good fair Tinnivelly nominally 7'65*d*.

American futures opened at 10 points decline, and, after a momentary period of steadiness during which values for late delivery recovered about 3 points, the market fell away rapidly, some 10 points below the opening level. Manchester selling appeared to be primarily responsible for the renewed set-back, and local liquidation of a scattered character added considerably to the weak tone of the market. Spot inquiry was better than in previous days, but no signs of real business were forthcoming, and another disquieting day was recorded in salesmen's books. Midday rates were called easy, from 22 points decline for nears to 14 points decline for distant months. The afternoon session reflected real weakness throughout. Interests in the manufacturing districts continued to sell heavily, assisted by general realisations of long accounts from nearly every speculative source. A loss of 10 points from noon values was followed by a temporary recovery of 6 points, after which offers increased in volume, and the downward movement was only checked when the price of July delivery touched 7'31*d*., or 50 points below last Friday's closing rates. The local professional element were kept busy by their local efforts to liquidate purchases made on the scale-down during the day, no relief of any kind being offered by steadily declining values in the American markets. A little covering at the close sufficed to prevent the decline from proceeding further, final prices being barely steady from 48 points net decline for nears to 39 points net decline for distant positions.

Egyptian futures closed weak, 80 to 75 points lower.

New York at our close was 43 to 39 points lower.

AMERICAN, BASIS FULLY MIDDLING, LOW MIDDLING CLAUSE.

	Value 12.15.	Close.	Prev. day.
June	7'44	7'18	7'66
July	7'59	7'33	7'81
August	7'73	7'44	7'92
September	7'87	7'58	8'05
October	8'03	7'76	8'20
November	8'12	7'86	8'28
December	8'21	7'96	8'36
January	8'27	8'01	8'41
February	8'32	8'06	8'46
March	8'38	8'12	8'51
April	8'42	8'16	8'56
May	8'47	8'21	8'61

Striking prices, 11; June, 7'54; July, 7'69; August, 7'81; September, 7'95; October, 8'10; November, 8'19; December, 8'28; January, 8'34; February, 8'39; March, 8'45; April, 8'49; May, 8'54.

The following are the highest and lowest quotations for American futures during the day:—

	Highest.	Lowest.		Highest.	Lowest.
June	—	—	December	8'00	8'00
July	7'72	7'31	January	8'34	8'00
August	7'82	7'45	February	—	—
September	7'95	7'70	March	8'44	8'14
October	8'12	7'73	April	—	—
November	8'09	8'09	May	8'52	8'22

EGYPTIAN DELIVERIES, BASIS F.G.F. SAKELLARIDIS.

	Value 12'0.	Close.	Prev. day.
June	13'55	12'95	13'75
July	13'55	12'95	13'75
August	13'60	13'05	13'80
September	13'70	13'15	13'90
October	13'80	13'25	14'00
November	13'80	13'25	14'00
December	13'85	13'30	14'05
January	13'90	13'35	14'10

Striking prices, 11; June, 13'75; July, 13'75; August, 13'80; September, 13'90; October, 14'00; November, 14'00; December, 14'05; January, 14'10.

Business after 12.0: July, 13'35; November, 13'60 50 25.¹

	Sales.		Imports. Gt. Britain.	
	To-day.	Prev. this week.	To-day.	Total week.
American	2,300	—	18,370	18,370
Brazilian	—	—	—	—
Egyptian	50	—	—	—
Peruvian	500	—	—	—
West Indian, etc.	—	—	163	163
African	—	—	—	—
East Indian, etc.	150	—	—	—
Total	3,000	—	18,533	18,533
Total since Friday		—		

SPOT QUOTATIONS.

American	Ord.	G.O.	F.G.O.	L.M.	F.L.M.
	4'04	4'79	5'54	6'04	6'49
	<i>i.s.</i> 340 off	265 off	190 off	140 off	95 off
American	Mid.	F.M.	G.M.	F.G.M.	M.F.
	7'04	7'69	8'09	8'79	9'99
	40 off	25 on	65 on	135 on	255 on

¹ Transactions of 100 bales only (American), or 50 bales only (Egyptian).

APPENDIX III

BRAZILIAN SPOT QUOTATIONS.

	M.F.	Fair.	G.F.
Pernam	4'94n	7'44n	9'94n
Parahyba	4'94n	7'44n	9'94n
Maccio	4'94n	7'44n	9'94n
Ceara	4'94n	7'44n	9'94n
São Paulo	—	6'94n	7'94n

EGYPTIAN SPOT TRADING VALUES FOR LIVERPOOL STANDARDS.

	Fair.	G.F.	F.G.F.	Good.	Fine.	Ex. fine
Upper	8'50n	9'50	10'50	11'50	12'50	13'50
Sakellaridis	10'75n	14'00	15'50	17'50	19'50	25'00
Brown	8'50n	10'00n	11'50	12'50	14'50	16'00

EAST INDIAN.

M.G.	G.F.	F.G.F.	Good.	F.G.	Fine.	S'fine
Surtee	—	—	—	7'65n	7'90n	8'15n
Broach	—	6'65n	6'90n	7'15n	7'40n	7'65n
No. 1 Oomra	4'25n	4'75n	5'25n	5'75n	6'00n	6'25n
Khandeish	—	4'00n	4'50n	5'00n	5'25n	5'50n
Bengal	3'25n	3'75n	4'25n	4'75n	5'00n	5'25n
Scinde	3'13n	3'63n	4'13n	4'63n	4'88n	5'13n
Tinnivelly	7'40n	7'65n	7'90n	—	—	—

ALEXANDRIA FUTURES.

	Ashmo'nl. June.	Sakel. July.	Ashmo'nl. Oct.	Sakel. Nov.
Friday's close	16'00	27'10	18'40	28'95
To-day's opening	—	26'10	17'90	28'00
„ close	15'60	26'50	18'00	28'25

NOTICE.—Alexandria market closed on Saturday until further notice.

APPENDIX III

EXAMPLES OF WAREHOUSE RECEIPTS AND WARRANTS.

(a) FORM of warehouse receipt issued by private elevators which have been declared "regular" by the Winnipeg Grain Exchange, *i.e.* which have given bonds and surety undertaking to comply with the by-laws of the Exchange, and are situated at Port Arthur or Fort William at the Head of the Lakes.

[Face.]

..... Elevator Company,
 No. (Winnipeg) 19
 Bushels lbs.
 The Company, on this date
 holds in store subject to the order of
 (owner)

in its Private Terminal Elevator situated at
 Bushels of
 which has been weighed by a duly authorised weighmaster, appointed
 under the Canada Grain Act. An equal quantity of grain of the same
 kind will be delivered to the said owner, or his order, on surrender of
 this receipt, properly endorsed and on payment of all proper charges
 payable to this company in connection with the same.
 Elevator Company.

This receipt shall be registered by
 the Board of Grain Commissioners as By
 to quantity.

[Back.]

The inspected grade called for by this receipt is
 Elevator Company.
 By

This receipt shall be registered as to grade by the Winnipeg Grain
 Exchange pursuant to the By-laws of the Exchange.

(b) Form of iron warrant referred to in Chapters IX and XI.

CONNAL & CO., LIMITED, WAREHOUSEKEEPERS, GLASGOW
 AND MIDDLESBROUGH.

WARRANT NO. FOR { Tons No. } Tons PIG IRON.
 28 { " No. }
 { " No. }
 { " No. }
 _____ Tons.

Middlesbrough,

We have received into our Stores and entered in our Warehouse Books in
 the name of and we
 now hold to Order, HUNDRED TONS PIG IRON of
 No. and we will deliver to Order, by endorsement
 hereon, FREE ON BOARD at our Shipping Wharf or FREE ON TRUCKS at
 our Stores, MIDDLESBROUGH, that quantity of Pig Iron, same Number and
 Brand, on payment of the Charges noted at foot and return of this Warrant.

CHARGES—

Rent 1d. per Ton per Month of
 4 weeks. Registration 1s. per
 Warrant.

CONNAL & CO., LIMITED,
 (Signature cancelled)

Rent to be paid every 12 months, and
 if not paid when due, Interest at the
 rate of 5 per cent. per annum will be
 charged.

WM. FLEMING Director.

Exd. and Entd. by

APPENDIX IV

SPECIMENS OF THE CONTRACT FORMS IN USE IN THE LIVERPOOL GRAIN TRADE.

That marked " No. 26—Future Delivery Contract—Wheat (Liverpool Grade)" is the futures contract form.

No. 1.—SPOT CONTRACT.

THE LIVERPOOL CORN TRADE ASSOCIATION, LIMITED.

Liverpool..... 19

..... have this day.....

(On the terms of the Printed Rules of the Liverpool Corn Trade Association, Limited, which contain a Domicile Clause as printed on the back hereof.)

THE FOLLOWING GOODS :—

.....
.....
.....
.....

Payment—Cash in seven days or before delivery if required, less three months interest at 5 per cent. from date of.....

Buyer and seller agree that, for the purpose of proceedings, either legal or by arbitration, this Contract shall be deemed to have been made in England and to be performed there, any correspondence in reference to the offer, the acceptance, the place of payment or otherwise notwithstanding, and the Courts of England or Arbitrators appointed in England, shall, except for the purpose of enforcing any award made in pursuance of the Arbitration Clause hereof, have exclusive jurisdiction over all disputes which may arise under this Contract. Such disputes shall be settled according to the law of England whatever the domicile, residence, or place of business of the parties to this contract may be or become. Any party to this Contract residing or carrying on business elsewhere than in England or Wales, shall, for the purposes of proceedings at law or in arbitration, be considered as ordinarily resident or carrying on business at the offices of the Liverpool Corn Trade Association, Limited, and if in Scotland, shall be held to have prorogated jurisdiction as against himself to the English Courts, or if in Ireland, to have submitted to the jurisdiction and to be bound by the decision of the English Courts. The service of proceedings upon any such party, by leaving the same at the offices of the Liverpool Corn Trade Association, Limited, together with the posting of a copy of such proceedings to his address abroad or in Scotland or Ireland, shall be deemed good service, any rule of law or equity to the contrary notwithstanding.

LIVERPOOL CORN TRADE ASSOCIATION, LIMITED.

[Face] AMERICAN PARCEL CONTRACT, C.I.F. TERMS.

In force 1st September, 1916. No. 7.

Liverpool,19

BOUGHT from
SOLD to.....

on the special conditions and rule endorsed hereon, and subject to such Clearing House Regulations as are applicable to this Contract.....

◆ Official certificate of inspection to be final as to quality. Quality.

◆ Of fair average quality of the season's shipments at time and place of shipment.

◆ About as per sample.....

The Buyer under this Contract shall not be entitled to reject a tender of a higher grade of grain of the same colour and description.

The grain is not warranted free from defect, rendering the same unmerchantable, which would not be apparent on reasonable examination, any statute or rule of law to the contrary notwithstanding.

Shipment in good condition from the Seaboard (Pacific coast excluded) Shipment.

as per Bill or Bills of Lading from American or Canadian Port or Ports (Virginian ports excluded as a second port of loading) per first-class steamer or steamers or motor vessel or vessels to..... with option of calling at other ports.

Say.....units, at the price of..... Quantity.

per.....lbs. shipped, including Freight and Insurance to..... Contract Price.

Seller has the option of shipping a further five per cent., more or less, on Contract quantity, such excess or deficiency to be settled at the c. f. & i. price on the date of shipment at the seaboard; value to be fixed by arbitration, unless mutually agreed, but no claim shall be made for a less sum than one pound sterling.

The unit of quantity under this Contract shall be lbs.

If documents are tendered which do not provide for customary discharge contain contrary stipulations as regards discharge and/or demurrage Seller to be responsible to Buyer for all extra expenses incurred thereby.

The Buyer has the right to have the grain weighed by Approved Automatic Hopper Scale at the ship's side or at a public warehouse, but in the latter case the Seller may require the weighing to take place at the ship's side, when we shall pay the extra cost incurred. Weighing.

In all cases in which the grain is weighed in drafts of not less than 2,000 lbs., an allowance of 2 lbs. per 2,000 lbs. shall be made for draftage.

Payment :—Payment by Buyer's acceptance or adoption of Shipper's or Seller's or Seller's Agent's draft or drafts payable in London, with shipping documents attached as usual at 7 days' sight for all ports north of and including Baltimore, at 14 days' sight for Virginian Ports, and at 30 days' sight for all ports south of Chesapeake Bay. Payment.

Sellers have the option of tendering approved delivery order and/or letter of insurance, in which case Buyers have the option of payment on arrival. Buyer is entitled to discount from date of payment to due date of draft or

drafts at the rate of one-half of one per cent. per annum above the advertised rate of interest for short deposits allowed by the leading Joint Stock Banks in London. Documents must be taken up by Buyer within three days from date of arrival of vessel at destination. If Bills of Lading are not to hand at the time of the arrival of the vessel the Seller on application must provide the necessary document to enable Buyer to obtain delivery, and payment must be made in exchange therefor. No obviously clerical errors in the documents shall entitle the Buyer to reject them or delay payment, but Seller shall be responsible for all loss or expense which such error may cause Buyer.

Policies.

Seller to give Policies and/or Certificates of Insurance, free of war risk, for two per cent. over invoice amount, and any amount over this to be for Seller's account in case of total loss only. Insurance to be effected with approved English and/or American Underwriters and/or Companies, but for whose solvency Seller is not responsible, and all claims to be payable in London and/or Liverpool. Policies and/or Certificates of Insurance to cover the risks under the "Harter Act."

[THESE TEMPORARY WAR CLAUSES FORM PART OF THIS CONTRACT.]

Clause recommended by the Board to be attached to Contract No. 7 American Parcel Contract c.i.f. Terms.

Payment :—Payment by Buyer's acceptance or adoption of Shipper's or Seller's or Seller's Agent's draft or drafts payable in London, with shipping documents attached as usual at 7 days' sight for all ports north of and including Baltimore, at 14 days' sight for Virginian Ports, and at 30 days' sight for all ports south of Chesapeake Bay. Sellers may tender, instead of Bills of Lading, Ship's or approved Delivery Order in which case the Buyers have the option of payment on arrival of vessel. Sellers may also tender instead of Policy or Policies of Insurance, Certificate or Letter of Insurance. Buyer is entitled to discount from date of payment to due date of draft or drafts at the rate of one-half of one per cent. per annum above the advertised rate of interest for short deposits allowed by the leading Joint Stock Banks in London. Documents must be taken up by Buyer within three days from date of arrival of vessel at destination. If Bills of Lading are not to hand at the time of the arrival of the vessel the Seller on application must provide the necessary document to enable Buyer to obtain delivery, and payment must be made in exchange therefor. No obviously clerical errors in the documents shall entitle the Buyer to reject them or delay payment, but Seller shall be responsible for all loss or expense which such error may cause Buyer.

Sellers to give Policies and/or Certificates and/or Letters of Insurance, free of war risk, for two per cent. over invoice amount, and any amount over this to be for Seller's account in case of total loss only. Insurance to be effected with approved English and/or American Underwriters and/or Companies, but for whose solvency Seller is not responsible, and all claims to be payable in London and/or Liverpool. Policies and/or Certificates and/or Letters of Insurance to cover the risks under the "Harter Act."

Any deficiency in the out-turn exceeding one per cent. of Bill of Lading quantity to be refunded by Seller.

In case of Sea Accidents (pumping up grain excepted) causing a deficiency on Invoice Weight, Provisional Invoice quantity to be final, except when such deficiency cannot be accounted for by the nature of the accident, and is not recoverable from Underwriters.

Prohibition.

Should Shipment be prevented by prohibition of export, blockade, or hostilities, this Contract, or any unfulfilled part thereof, shall be at an end. If the grain shipped, or any part thereof, is not in accordance with the

Contract as regards quality, the Arbitrators shall award that it be taken with an allowance or be invoiced back to the Seller at such price as they shall determine, not being more than 5 per cent. in excess of the market price of the grain contracted for on the day of arbitration.

..... to pay Brokerage of Brokerage.
Contract cancelled or not cancelled.

Buyer and Seller agree that, for the purpose of proceedings, either legal or by arbitration, this Contract shall be deemed to have been made in England and to be performed there, any correspondence in reference to the offer, the acceptance, the place of payment or otherwise notwithstanding, and the Courts of England or Arbitrators appointed in England, shall, except for the purpose of enforcing any award made in pursuance of the Arbitration Clause hereof, have exclusive jurisdiction over all disputes which may arise under this Contract. Such disputes shall be settled according to the law of England whatever the domicile, residence, or place of business of the parties to this contract may be or become. Any party to this Contract residing or carrying on business elsewhere than in England or Wales, shall, for the purposes of proceedings at law or in arbitration, be considered as ordinarily resident or carrying on business at the offices of the Liverpool Corn Trade Association, Limited, and if in Scotland, shall be held to have prorogated jurisdiction as against himself to the English Courts, or if in Ireland, to have submitted to the jurisdiction and to be bound by the decision of the English Courts. The service of proceedings upon any such party, by leaving the same at the offices of the Liverpool Corn Trade Association, Limited, together with the posting of a copy of such proceedings to his address abroad or in Scotland or Ireland, shall be deemed good service, any rule of law or equity to the contrary notwithstanding.

All disputes from time to time arising out of this Contract, whether arising between the parties hereto, or between one of the parties hereto and the Trustee in Bankruptcy of the other party, shall be referred according to the Liverpool Arbitration Rule endorsed on this Contract, and this stipulation may be made a rule of any of the Divisions of His Majesty's High Court of Justice in Ireland, on the application of either contracting party, for the purpose of enforcing an award against a party residing or carrying on business in Ireland.

Strike.—1. Should shipment of the goods or of any part thereof be prevented at any time during the last twenty-eight days of guaranteed time of shipment, or at any time during guaranteed contract period, if such be less than twenty-eight days, by reason of riots, strikes or lockouts at port or ports of loading, or elsewhere preventing the forwarding of the goods to such port or ports, then the Shipper shall be entitled at the termination of such riots, strikes or lockouts to as much time for shipment from such port or ports as was left for shipment under the contract prior to the outbreak of the riots, strikes or lockouts, and in the event of the time left for shipment under the contract being seven days or less, an additional seven days shall be allowed for shipment. In no case less than fourteen days in all shall be allowed. In case of non-shipment under above circumstances, and if Shipper has claimed an extension under paragraph 2 of this Clause, the date of default shall be similarly deferred.

2. Shipper shall give notice by cable not later than two days (Sundays and holidays excepted) after the last day of guaranteed time of shipment, if he intends to claim an extension of time for shipment under the above clause. Such notice shall state the port or ports from which shipment was intended to be made, and if such extension is claimed the shipment shall only be made from such port or ports. All such notices shall be passed on in due course.

3. If the Shipper gives the notice above referred to he shall forthwith apply to the North American Export Grain Association and request them to cable immediately to the Liverpool Corn Trade Association confirming

the existence of such riots, strikes or lockouts, and in due course to cable the dates of commencement and termination thereof. The Shipper agrees to comply with all requirements of the North American Export Grain Association to ensure such cables being sent.

4. A certificate of the North American Export Grain Association certifying the existence and duration of the riots, strikes or lockouts causing the delay and/or prevention shall be attached to the shipping documents and be accepted as final. If a certificate is issued too late to be attached to the shipping documents then a notification by cable from the North American Export Grain Association to the Liverpool Corn Trade Association that such certificate has been issued shall be deemed equivalent to a certificate attached to shipping documents always provided that such notification shall have been received by the Liverpool Corn Trade Association not later than the date of arrival of documents in Liverpool.

The Arbitration to be held in LIVERPOOL.

◆ N.B. The Clauses in Italics are alternative.

[Back] Contract No. 7 (PARCEL).

CONDITIONS.

Appropriation.

1. NOTICE OF APPROPRIATION with vessel's name, shall be delivered by Seller or his Agent to Buyer within five days after the date of sailing from the last port on the same seaboard, but in no case later than seven days from the last day of the period of shipment named in the Contract. The Notice shall be deemed to be under reserve for telegraphic errors or delays only, and without prejudice to this Contract. Notice to the Broker or Agent shall be deemed a Notice within the terms of this Contract. In case of Re-Sales, all Notices shall be accepted by Buyer if passed on in due course. Buyer shall on demand give Seller written receipt for notice of appropriation.

Proof of Shipment.

2. BILL OF LADING to be considered proof of date of shipment in the absence of evidence to the contrary. Any separate parcel shipped at the seaboard in partial execution of this Contract shall, except as regards terms of payment, be considered as if shipped under a separate Contract.

Retirement of Documents.

3. NOTICE TO RETIRE DOCUMENTS shall be given by Buyer to Seller, before 1 o'clock on the day previous to the day of payment, except on Saturdays when the time shall be 11 o'clock.

Notice or declaration required to be made under this Contract cannot be made on any of the following non-business days:—Sundays, Good Friday, Easter Monday, Whit Monday, the first Monday in August, Christmas Day, and the next week-day following, and any other days proclaimed as Bank Holidays, and cannot be made to any party whose place of business is within the area of the Liverpool Telephone Exchange on any business day before 10 a.m. or after 5.30 p.m., and Saturdays 1 p.m.

Strike.

STRIKE. If the contract terms require shipment from some particular port, and shipment is prevented or delayed by reason of riot, strike, or lockout at such port, then this contract shall be deemed to be extended to the number of days that such riot, strike or lockout exists, provided notices of the outbreak and termination of riots, strikes, or lockouts be cabled by the Shipper to his Buyer (such notice to be passed on in due course) and confirmed by cable by the North American Export Grain Association to the Liverpool Corn Trade Association within three days of each event.

Extension of Shipment.

EXTENSION OF SHIPMENT. The period herein specified within which Bills of Lading must be dated shall be deemed to include an additional period not to exceed eight days, when so desired by the Shipper, provided he gives his Buyer notice of his intention to claim additional days by cable sent not later than the business day following the last day included in the originally stipulated period for shipment; such notice shall be passed on by other Sellers to their Buyers respectively in due course after receipt.

Such notice need not state the number of additional days claimed by the Seller and the Seller may ship at any time within eight additional days. The Seller, however, shall make an allowance to the Buyer, to be deducted in the invoice from the contract price, based on the number of days by which the originally stipulated period is exceeded, as follows :—

For 1, 2 or 3 additional days . . .	1 per cent. of the gross c.i.f. price.
For 4, 5 or 6 additional days . . .	2 per cent. of the gross c.i.f. price.
For 7 or 8 additional days . . .	3 per cent. of the gross c.i.f. price.

If, however, after having given notice to the Buyer as above, the Seller fails to make shipment within such eight days, then the contract shall be deemed to have called for shipment during the originally stipulated period plus eight days, at contract price less 3 per cent., and any settlement for default shall be calculated on that basis.

4. (a) IF THE SELLER SHALL MAKE DEFAULT in shipping or Default. declaring shipment, or in tendering the documents required by this Contract, the contract shall be closed by invoicing back the goods contracted for at such price as the Arbitrators shall determine, and this shall apply whether the price so determined be higher or lower than the Contract price.

(b) IF THE BUYER DEFAULTS in the fulfilment of Contract or Award, the Seller, at his discretion, shall, after giving notice in writing, have the right of re-sale, and the defaulter shall make good the loss, if any, by such re-sale on demand.

(c) IF, BEFORE THE MATURITY OF THIS CONTRACT, EITHER PARTY SHALL SUSPEND PAYMENT, OR BECOME BANKRUPT OR INSOLVENT, or become lunatic, or insane, or die without leaving executors or others willing and able forthwith to take over the liability attached to such party under the Contract, or be declared a defaulter by the Clearing House Committee, the Contract shall forthwith be closed at the market price then current for similar goods, or, at the option of the other party, at a price to be ascertained by re-purchase or re-sale, as the case may be, before the expiration of the following business day, and shall be entitled to be paid by the party so suspending payment or committing an act of bankruptcy, or to prove against his estate, whether wound up in bankruptcy or otherwise, for the loss, if any, or shall account for the profit, if any, on such re-sale or re-purchase, any rule of law or equity to the contrary notwithstanding.

5. The word "ABOUT" when referring to Quality, shall mean the equivalent of threepence per 480 lbs.

6. When Buyer requires ARBITRATION on quality he shall make his claim and nominate his Arbitrators within three business days after final discharge of the shipment. When the subject matter and terms of Contract are identical, except as to price, all Arbitrations shall be held as between the first Seller and the last Buyer, as though they were contracting parties, and the awards made in pursuance thereof, subject to the right of appeal as provided by the Arbitration Rule, shall be binding on all intermediate parties. Claims for Arbitration.

7. ARBITRATION on quality having been claimed in accordance with the terms of this Contract, the parties claiming must proceed with the Arbitration within 28 days of final discharge when sold on sample, or when sold fair average quality within 28 days of the publication in the Trade Lists that the Standard has been, or will not be made up. After the expiration of these limits, claims for quality to be void, unless the delay is, in the opinion of the Arbitrators, considered justifiable. No claim for shortage shall be made after the expiration of 28 days from the receipt of the official weights. Finality Rule.

8. REGISTRATION.—Either party to this Contract, whether a member or non-member of the Association, shall have the right at any time during its currency, to register it at the Clearing House, but it shall not be subject to Calls for Margin.

**ARBITRATION RULE OF THE LIVERPOOL CORN TRADE
ASSOCIATION, LIMITED,**

AS APPLIED TO THIS CONTRACT.

All disputes arising out of transactions connected with the Trade, except such as arise out of the business of the Clearing House, shall be referred to two arbitrators, one to be chosen by each party in difference, the said arbitrators having power to call in a third in case they shall deem it necessary. In the event of one of the parties appointing an arbitrator and the other refusing, or for three days after notice in writing of the appointment neglecting to do so (such notice to be delivered personally or left at the usual place of business of such other party), or in case the arbitrators appointed by the parties shall not within seven days after their appointment agree to an award, or appoint a third arbitrator, or, after the appointment of such third arbitrator, in case of the death, refusal to act, or incapacity of any one or more of such three arbitrators, or in any case in which the Clearing House Regulations may so provide, then, upon application of either of the disputing parties, the question in dispute shall stand referred to two arbitrators to be nominated by the President for the time being of the Association, or by the Vice-President in case of the absence of the President, his illness, or interest in the matter in dispute; and in case of the absence of the Vice-President, his illness, or interest in the matter in dispute, then the Directors, on the application of either of the disputing parties, shall appoint two arbitrators; and in case the two arbitrators appointed, whether by the President, the Vice-President, or the Directors, shall not within seven days after their appointment agree to an award, or choose a third arbitrator, then the Directors shall appoint a third arbitrator, and shall, in the case of the death, refusal to act, or incapacity of any such three arbitrators, from time to time substitute a new arbitrator or arbitrators in the place of the arbitrator or arbitrators so dying, refusing or incapacitated.

In case either party shall be dissatisfied with any award of arbitrators, a right of appeal shall lie to the Directors, provided it be claimed not later than seven running days after the date of the award.

The arbitrators appointed shall in all cases be members of the Association, and no person having any interest in the matter in dispute shall be competent to act as an arbitrator.

The award of any two arbitrators in writing signed by them (subject only to the right of appeal hereinafter mentioned) shall be conclusive and binding upon all disputing parties, both with respect to the matter in dispute, and all fees and expenses of the reference and award. Every award shall be written on a form to be settled by the Directors and supplied by the Association at a charge (to be fixed by the Directors) not exceeding ten shillings.

No arbitrator shall be entitled to demand a higher fee than £5 5s., nor shall such fee be less than £1 1s. for every requisite sitting.

Where an appeal is claimed the appellant shall pay to the Association as a fee for the investigation, the sums following:—

	Members.	Non-Members.
For appeals in respect of quantities not exceeding 250 tons	£5 0 0	£7 10 0
For appeals in respect of quantities exceeding 250 tons	£10 0 0	£15 0 0

When any question of quality and/or condition is involved, the Directors shall not hear the appeal, but shall appoint a Special Appeal Committee of six to hear and determine the matter. Directors and other Members of the Association shall be eligible for appointment on such Special Appeal Committee. In case of the death, refusal or neglect to act or incapacity of not

more than two Members of the Special Appeal Committee, the remaining Members shall forthwith fill up the vacancy or vacancies so occurring. In case of the death, refusal or neglect to act or incapacity of more than two Members of the Special Appeal Committee, the Directors shall fill up the vacancies so occurring. The Special Appeal Committee shall confirm the award appealed from and the appeal fees shall follow the award unless two-thirds of the Members hearing such appeal shall decide to vary such award. The Special Appeal Committee shall have power to award by whom the Arbitrators' fees and any legal or other expenses incurred by the Association shall be borne, but no award shall be made in respect of such fees and expenses except by the vote of two-thirds of the Members hearing the case.

In appeals (other than quality and/or condition) the Directors shall decide all questions, including the payment of Arbitrators' fees and any legal or other expenses incurred by the Association, by a majority of votes, and in the event of an equality of votes, the Chairman shall have a second or casting vote.

If the Directors or the Special Appeal Committee, as the case may be, shall see fit to state in the form of a special case for the opinion of the Court any question of law arising in the course of the reference, or if they shall be directed so to do, the Association shall be entitled to an addition to their fee not exceeding £15 for every requisite sitting. The Arbitrators, Director or Special Appeal Committee, as the case may be, shall have power from time to time to make interim awards.

An award signed by the Chairman of the meeting which shall hear such appeal, and countersigned by the Secretary or his substitute, shall be deemed to be the award of the Directors or the Special Appeal Committee, as the case may be, and shall in all cases be final.

No party shall have the right to be heard on appeal until he has paid the fees and other arbitrators' expenses payable by him on the award in respect of which the appeal is made.

No Director having any interest in the matter in dispute shall vote on the question of the appointment of arbitrators, or, in the case of an appeal, sit or vote on the hearing of such appeal, or on the appointment of any Special Appeal Committee; nor shall the arbitrators whose decision is appealed against, vote on the hearing of this appeal.

Neither contracting party, nor Trustee in Bankruptcy, or other person claiming under either of them, shall bring any action against the other of them in respect of any dispute until such dispute has been settled by arbitrators, the Directors, or the Special Appeal Committee, as the case may be, and it is expressly agreed that the obtaining of an award shall be a condition precedent to the right of either contracting party to sue the other in respect of any such dispute.

For the purpose of enforcing any award, the provisions of the Arbitration Act, 1889, or any statutory modification or re-enactment thereof shall apply in England, and the provisions of any Scotch or Irish Act dealing with arbitrations or the procedure thereon shall apply respectively in Scotland and Ireland, and any award may if necessary be made a Rule of Court in Ireland, or an Order of the Court of Session in Scotland.

If the Directors or the Special Appeal Committee as the case may be shall state a Special Case for the opinion of the Court, the party at whose request or instance the Case is to be stated shall deposit with the Association the sum of £100 as security for the fees, costs and expenses of the Directors, or the Special Appeal Committee, and the Association of and incidental to stating and setting down such Special Case.

If the party requiring the Case to be stated shall neglect or fail to make such deposit within seven days after the Directors or the Special Appeal Committee have agreed or been directed to state a Case, the Directors or the Committee, as the case may be, shall be entitled to proceed with their award without stating such case, and in any order directing the Directors

or Committee to state a Special Case the party requiring the Case to be stated shall consent to abide by the provisions of this paragraph and to make the said deposit within the time aforesaid. If at any time after the Directors or the Special Appeal Committee have agreed or been directed to state a Special Case, but before a final award has been made, the parties in difference shall settle their dispute, the Directors or the Committee as the case may be shall satisfy themselves that such dispute is settled and thereupon the Directors or the Committee and the Association shall be entitled to payment of their fees, costs and expenses in connection with the Special Case out of the said deposit and the Association shall account for the balance, if any, to the party by whom the deposit was paid. If the matter in dispute shall not be settled between the parties but a final award shall be made, the manner in which the said deposit shall be dealt with shall be in the discretion of the Directors or the Committee making the award.

No. 18.—SHIPMENT AND DELIVERY CONTRACT.

THE LIVERPOOL CORN TRADE ASSOCIATION, LIMITED.

Liverpool.....19

We have this day sold to.....on the terms of the Printed Rules of the Liverpool Corn Trade Association, Limited,.....

To be delivered ex quay and/or store at Seller's option, in fair merchantable condition ; a slight dry warmth not to be objected to.

Particulars of shipment shall be declared by the first Seller to his Buyer before the vessel named has appeared in the Bill of Entry, unless the vessel brings its own advices, in which case an extra day shall be allowed. In case of re-sale a copy of first declaration shall be accepted by Buyer if passed on in due course.

Ship damaged or sea water damaged goods may be rejected, and the Contract, so far as regards the quantity rejected, shall be at an end.

In the event of the goods declared, or any part thereof, being prevented from arriving by perils of the seas, the Contract, so far as regards such goods, shall be at an end.

In case of prohibition of export, blockade or hostilities preventing shipment, this Contract, or any unfulfilled part thereof, shall be at an end.

Bill of Lading to be considered proof of date of shipment in the absence of evidence to the contrary.

Any separate parcel declared in partial execution of this Contract, shall be considered as if shipped under a separate Contract.

If the goods tendered, or any part thereof, are not in accordance with the Contract as regards quality and/or condition, the Arbitrators shall award that the goods be taken with an allowance or be invoiced back to the Seller at the market price of the goods contracted for on the day of arbitration, with or without a penalty, not exceeding 5 per cent. on such price, according to the special circumstances of the case.

Payment—as per Rule 8, allowing interest equal to three months from date of being ready for delivery.

This Contract is made between yourselves and ourselves and not by or with any person, whether disclosed or not, on whose instructions or for whose benefit the same may have been entered into.

.....

No. 18.—SHIPMENT AND DELIVERY CONTRACT.

THE LIVERPOOL CORN TRADE ASSOCIATION, LIMITED.

Liverpool.....19

We have this day bought from.....on the terms of the Printed Rules of the Liverpool Corn Trade Association, Limited,.....

To be delivered ex quay and/or store at Seller's option, in fair merchantable condition ; a slight dry warmth not to be objected to.

Particulars of shipment shall be declared by the first Seller to his Buyer before the vessel named has appeared in the Bill of Entry, unless the vessel brings its own advices, in which case an extra day shall be allowed. In case of re-sale a copy of first declaration shall be accepted by Buyer if passed on in due course.

Ship damaged or sea water damaged goods may be rejected, and the Contract, so far as regards the quantity rejected shall be at an end.

In the event of the goods declared, or any part thereof, being prevented from arriving by perils of the seas, the Contract, so far as regards such goods, shall be at an end.

In case of prohibition of export, blockade or hostilities preventing shipment, this Contract, or any unfulfilled part thereof, shall be at an end.

Bill of Lading to be considered proof of date of shipment in the absence of evidence to the contrary.

Any separate parcel declared in partial execution of this Contract, shall be considered as if shipped under a separate Contract.

If the goods tendered, or any part thereof, are not in accordance with the Contract as regards quality and/or condition, the Arbitrators shall award that the goods be taken with an allowance or be invoiced back to the Seller at the market price of the goods contracted for on the day of arbitration, with or without a penalty not exceeding 5 per cent. on such price, according to the special circumstances of the case.

Payment—as per Rule 8, allowing interest equal to three months from date of being ready for delivery.

This Contract is made between yourselves and ourselves and not by or with any person, whether disclosed or not, on whose instructions or for whose benefit the same may have been entered into.

.....

Amended 19th December, 1892.

No. 20.—EAST INDIA WHEAT SHIPMENT AND DELIVERY CONTRACT.

[Face]

THE LIVERPOOL CORN TRADE ASSOCIATION, LIMITED.

Liverpool.....19

We have this day sold to.....on the terms of the Printed Rules of the Liverpool Corn Trade Association, Limited, and the Rules endorsed hereon.....about.....

.....of fair average quality of the season's shipment at time and place of shipment Crop..... at..... per 100 lbs..... London Standard.

Any percentage of Barley, Pulse and/or other feeding stuffs up to two per cent. to be taken and paid for as Wheat; any quantity in excess of two per cent. to be allowed for by Seller at one half settling price. Any percentage of dirt, non-farinaceous seeds or other extraneous matter up to $2\frac{1}{4}$ per cent. to be allowed for by Seller at settling price, and any quantity in excess of $2\frac{1}{4}$ per cent. at double settling price. Settlement for differences and allowances shall be made between First Seller and Last Buyer; intermediate provisional invoices shall be final.

For the purpose of determining the quantity of such percentages as above, the Buyer or his Agent has the right to select one bag in every thousand; provided that of each separate mark not less than five nor more than sixty bags are to be selected, any Wheat for shipper's account remaining unsold of such mark being excluded. After selection the bags are to be enclosed in dust-proof covers, which are to be sealed by Buyer and Seller or their Agents at time of discharge, and dealt with in accordance with the rules adopted by the Liverpool Corn Trade Association.

One analysis only to be made of bags of the same mark in any vessel, exclusive of any unsold Wheat for Shipper's account, and every Receiver thereof to abide by the result of such analysis.

The certificate of analysis of the said Association or its duly appointed Analyst to be final.

.....shipment from.....
via.....to LIVERPOOL and/or BIRKENHEAD, per steamer or
steamers,.....

To be delivered, ex quay and/or store, at Seller's option, in fair merchantable condition; a slight dry warmth and slight weevilling not to be objected to. Importer's bags for Seller's account.

Particulars of shipment shall be declared by the first Seller to his Buyer within 25 days from the date of sailing of the vessel. Every declaration shall be deemed to be under reserve for errors or delay in telegraphic transmission, and should such telegraphic information be delayed beyond the 25 days or be lost by causes out of Seller's control, then the Seller to have 24 hours after the receipt of the necessary particulars in Liverpool or London for making appropriation. In case of re-sales, a copy of first declaration shall be accepted by Buyers if passed on in due course.

Ship damaged or sea water damaged Grain may be rejected, and the Contract, so far as regards the quantity rejected, shall be at an end.

In the event of the Grain declared, or any part thereof, being prevented from arriving by perils of the seas, the Contract, so far as regards such Grain, shall be at an end.

In case of prohibition of export, blockade or hostilities preventing shipment, this Contract, or any unfulfilled part thereof, shall be at an end.

Seller to pay.....Brokerage of.....per cent. Contract cancelled or not cancelled.

Bill of Lading to be considered proof of date of shipment in the absence of evidence to the contrary.

Any separate parcel declared in partial execution of this Contract, shall be considered as if shipped under a separate Contract.

If the Grain tendered, or any part thereof, is not in accordance with the Contract as regards quality and/or condition, the Arbitrators shall award that the Grain be taken with an allowance or be invoiced back to the Seller at the market price of the Grain contracted for, on the day of arbitration, in either case with or without a penalty, not exceeding 5 per cent. on such price, according to the special circumstances of the case.

If at the time of tender the Standard for the month's shipment has not been made up, the Arbitrators may decide on the last previous available standard, or on such other evidence as they may think fit, whether or not the Grain is to be invoiced back to the Seller, but the price at which it is to be invoiced back shall stand over until the standard for the month in which

the Grain was shipped has been made up, and shall then be decided by arbitration, according to the price of the day of the former arbitration. Any claim of the Buyer to an allowance from the Contract price shall also stand over, and be decided by arbitration in like manner.

Payment—as per Rule 8, allowing interest equal to three months from date of being ready for delivery.

This Contract is made between yourselves and ourselves and not by or with any person, whether disclosed or not, on whose instructions or for whose benefit the same may have been entered into.

Amended 19th December, 1892.

[Back]

RULES FOR SAMPLING AND ANALYSIS.

1. The bags of Grain selected in the manner provided by this Contract shall be sent by the Buyer or his Agent without delay to the Liverpool Corn Trade Association, or to any person or Company appointed and authorised by the said Association.

As soon as practicable after the receipt thereof the whole of the contents of the bags shall be passed through an approved machine by the Association or by any person or Company appointed and authorised by them, and a sample of convenient size taken therefrom, which shall be analysed by the Association.

Where the machine is not owned and controlled by the Association at any port, the Buyer and Seller or their Agents have the right to be present during the reducing operation.

2. The Association shall pass a portion of the surplus Grain over a screen approved by them, and place the same into bags for inspection, arbitration, and standard purposes.

3. After providing the necessary samples, all surplus Grain shall be sold by the Association, and the proceeds credited to the First Seller of the cargo or parcel.

4. Upon the application of the Buyer or his Agent, the Association shall supply the requisite number of dust-proof covers, but anyone to whom such covers are sent shall pay the carriage thereon, and shall be liable to pay the value thereof if the same are not returned within one month.

5. Neither the Association nor their officers shall be liable for any damage sustained by reason of the loss or destruction of or damage to any samples sent to them or in their custody.

6. The analysis fees together with any charges incurred by the Association on samples sent for analysis shall be borne and paid as to one half by the Seller and one half by the Buyer, and if there be more than one Buyer of Grain of the same mark in any ship he shall contribute his due proportion of the said fees and charges.

No. 20.—EAST INDIA WHEAT SHIPMENT AND DELIVERY CONTRACT.

[Face]

THE LIVERPOOL CORN TRADE ASSOCIATION, LIMITED.

Liverpool.....19

We have this day bought from.....on the terms of the Printed Rules of the Liverpool Corn Trade Association, Limited, and the Rules endorsed hereon.....about.....

THE LIVERPOOL CORN TRADE ASSOCIATION, LIMITED.

[Face]

No. 26.—FUTURE DELIVERY CONTRACT—WHEAT (LIVERPOOL GRADE).

Liverpool.....19

We have this day SOLD to..... on the terms of the Printed Rules of the Liverpool Corn Trade Association, Limited,.....say about..... Centsals Wheat, as endorsed hereon, at.....per 100 lbs., subject to mutual allowances for superiority or inferiority as fixed by the Grading Committee, but not exceeding one penny per cental, to be delivered during.....ex store in Liverpool, or, at Seller's option, in Birkenhead at an allowance to the Buyer of halfpenny one ~~farthing~~ per Cental.

The Certificate of the Grading Committee shall accompany the tender of the goods, and as between Buyer and Seller shall be final as to grade, and as between them shall not be affected by the result of any review of the Certificate under the provisions of the Bye-Laws as to grading.

The Wheat at time of tender to be in fair merchantable condition (a slight dry warmth not to be objected to).

Payment—as per Rule 8, allowing interest equal to three months from date of being ready for delivery.

This Contract is made between yourselves and ourselves and not by or with any person, whether disclosed or not, on whose instructions or for whose benefit the same may have been entered into.

Amended 13th May, 1912.

This Contract was made on the date specified, and within the business hours fixed by the Liverpool Corn Trade Association, Limited.

Amendment
1st Sept.,
1920.

[Back] AMERICAN RED WHEAT.

Spring Wheat. If of the type known as Manitoba, basis of weight 60 lbs.

If of the type known as Northern (grown in the United States), basis of weight 59 lbs.

Any other type of Spring Wheat, basis of weight 60 lbs.

Soft Winter Wheat, free from garlic, basis of weight, 61 lbs.

Hard Winter Wheat, basis of weight, 60½ lbs.

ARGENTINE WHEAT.

Rosario—Santa Fe type, basis of weight, 59½ lbs.

Bahia Blanca type, basis of weight, 60½ lbs.

AUSTRALIAN WHEAT.

Victorian
South Australian } basis of weight, 60½ lbs.
New South Wales

No Wheat shall be graded which, in the opinion of the Grading Committee, has any defect which would render it unsuitable for general milling purposes.

Subject always to this proviso, basis Wheat may contain some heated, sprouted, frosted and/or smutted grains, and a proportionately increased quantity may be allowed if warranted by an improvement in weight or in other respects.

- No Wheat weighing more than one pound per imperial bushel under the basis weight shall be graded.
- No Wheat which complies with the weight requirements shall be rejected on account of the presence of heated, sprouted, frosted and/or smutted grains or other defects if, in the opinion of the Grading Committee, it is not more than one penny per cental inferior to basis quality.
- The allowances, if any, shall be in gradations of not less than one halfpenny per cental.
- The basis of weight as hereinbefore provided is per imperial bushel at time of grading.
- Spring Wheats must be reasonably hard of their respective types, and all descriptions of Wheat must be reasonably clean of their respective types.
- American Red Wheat must be Wheat grown East of the Rocky Mountains in the United States of North America and/or Canada, except where otherwise provided.

This Contract was made on the date specified, and within the business hours fixed by the Liverpool Corn Trade Association, Limited.

THE LIVERPOOL CORN TRADE ASSOCIATION, LIMITED.

[Face]

No. 26.—FUTURE DELIVERY CONTRACT—WHEAT (LIVERPOOL GRADE).

Liverpool.....19

We have this day BOUGHT from..... on the terms of the Printed Rules of the Liverpool Corn Trade Association, Limited.....say about..... Centals Wheat, as endorsed hereon, at..... per 100 lbs., subject to mutual allowances for superiority or inferiority as fixed by the Grading Committee, but not exceeding one penny per cental, to be delivered during.....ex store in Liverpool, or, at Seller's option, in Birkenhead at an allowance to the Buyer of halfpenny one farthing per Cental.

The Certificate of the Grading Committee shall accompany the tender of the goods, and as between Buyer and Seller shall be final as to grade, and as between them shall not be affected by the result of any review of the Certificate under the provisions of the Bye-Laws as to grading. Amendment 1st Sept., 1920.

The Wheat at time of tender to be in fair merchantable condition (a slight dry warmth not to be objected to).

Payment—as per Rule 3, allowing interest equal to three months from date of being ready for delivery.

This Contract is made between yourselves and ourselves and not by or with any person, whether disclosed or not, on whose instructions or for whose benefit the same may have been entered into.

.....
Amended 13th May, 1912.

[Back] AMERICAN RED WHEAT.

- Spring Wheat.* If of the type known as Manitoba, basis of weight, 60 lbs.
- If of the type known as Northern (grown in the United States), basis of weight, 59 lbs.
- Any other type of Spring Wheat, basis of weight, 60 lbs.

Soft Winter Wheat, free from garlic, basis of weight, 61 lbs.
Hard Winter Wheat, basis of weight, 60½ lbs.

ARGENTINE WHEAT.

Rosario—Santa Fe type, basis of weight, 59½ lbs.
Bahia Blanca type, basis of weight, 60½ lbs.

AUSTRALIAN WHEAT.

Victorian
South Australian } basis of weight, 60½ lbs.
New South Wales

- No. Wheat shall be graded which, in the opinion of the Grading Committee, has any defect which would render it unsuitable for general milling purposes.
- Subject always to this proviso, basis Wheat may contain some heated, sprouted, frosted and/or smutted grains, and a proportionately increased quantity may be allowed if warranted by an improvement in weight or in other respects.
- No Wheat weighing more than one pound per imperial bushel under this basis weight shall be graded.
- No Wheat which complies with the weight requirements shall be rejected on account of the presence of heated, sprouted, frosted and/or smutted grains or other defects if, in the opinion of the Grading Committee, it is not more than one penny per cental inferior to basis quality.
- The allowances, if any, shall be in gradations of not less than one half-penny per cental.
- The basis of weight as hereinbefore provided is per imperial bushel at time of grading.
- Spring Wheats must be reasonably hard of their respective types, and all descriptions of Wheat must be reasonably clean of their respective types.
- American Red Wheat must be Wheat grown East of the Rocky Mountains in the United States of North America and/or Canada, except where otherwise provided.

LIVERPOOL CORN TRADE ASSOCIATION, LIMITED.

RIVER PLATE PARCEL CONTRACT, C.I.F. TERMS.

[Face]

RYE TERMS.

In force 1st September, 1920.

No. 28.

Liverpool.....19

BOUGHT from

SOLD to

..... on the conditions and rule endorsed hereon and subject to such clearing house Regulations as are applicable to this Contract.....

Quality.

◆ of fair average quality of the season's shipments at time of shipment of the undermentioned weight.....

◆ about as per sample due allowance being made for handling and smallness of same,

The grain is not warranted free from defect, rendering the same un-merchantable, which would not be apparent on reasonable examination, any statute or rule of law to the contrary notwithstanding.

Shipment in good condition, in bags and/or bulk (any portion in bags Shipment.
 per 480 lbs. extra) per
 first-class..... classed not lower than A1 in red English,
 5/6 11 French Veritas, or equal classification in Austrian, Norwegian,
 Italian, or other equal register (Greek and Turkish sailing vessels excepted)
 from a port or ports in the Argentine Republic and/or Uruguay.....
 as per Bill or Bills of Lading dated or to be dated.....
 about..... say about..... Quantity.

 (reckoning provisionally 1,016 kilos, equal to 2,240 lbs. English), at the Contract
 price of..... say..... Price.
 per 480 lbs. delivered sound (subject to any country
 damaged grains in the fair average quality of the season's crop) gross weight,
 bags as....., including Freight and Insurance to.....

The whole Parcel to be weighed in drafts of not less than three bags, or Weighing.
 not less than five cwts. per draft, or, at Buyer's option, ex ship at even
 weights of not less than 240 lbs. per draft, or, if discharged on the Continent,
 not less than 100 kilos. Seller shall have the right of supervision both as to
 the weighing and delivery. Should the parcel be discharged on the
 Continent, the out-turn to be computed at 1,016 kilos, equal to 2,240 lbs.
 English.

The Buyer has the right to have the grain weighed by Approved
 Automatic Hopper Scale at the ship's side, or, if discharged in the port of
 Liverpool, at a public warehouse, but in the latter case the Seller may
 require the weighing to take place at the ship's side, when he shall pay the
 extra cost incurred.

In all cases in which the grain is weighed in drafts of not less than
 2,000 lbs., an allowance of 2 lbs. per 2,000 lbs. shall be made for draffage.

If a natural weight is guaranteed at time of discharge the Rules adopted
 by the Liverpool Corn Trade Association in reference thereto shall apply to
 this Contract.

Any deficiency on Bill of Lading weight to be refunded by Seller, and
 any excess over Bill of Lading weight to be paid for by Buyer.

Vessel to be discharged afloat, and according to the custom of the port.
 No charge for dunnage. If documents are tendered which do not provide
 for discharging as above or contain contrary stipulations as regards dis-
 charge and/or demurrage Seller to be responsible to Buyer for all extra
 expenses incurred thereby.

Should the Parcel form part of a larger quantity, loose collected,
 damaged and sweepings to be shared pro-rata.

Slight dry warmth not injuring the grain not to be objected to, but grain
 damaged by sea water or otherwise to be taken by Buyer with an allowance
 for deterioration, based on Contract price, to be fixed by Arbitration in
 Liverpool. Samples to be taken and sealed jointly by Buyer's and Seller's
 agents at port of discharge.

Payment by Cash in Liverpool or London at Seller's option in exchange Payment.
 for shipping documents, on or before the arrival of the vessel, less discount
 at the rate of one half of one per cent. per annum above the advertised rate
 of interest for short deposits allowed by the leading Joint Stock Banks in
 London, for the unexpired time of ninety days from the arrival of Bill or
 Bills of Lading in due course in Europe, or, at Seller's option, by Buyer's
 acceptance of Skipper's or Seller's draft, domiciled in London, at ninety
 days from date of arrival of Bill or Bills of Lading in due course in Europe,
 with Documents attached as usual, but payment in no case later than the....
 prompt. The Seller shall provide separate Bills of Lading and Certificates

or approved letters of insurance for each 250 tons, but the Seller has the option on the arrival of the vessel of tendering a delivery order and letter of insurance for each 250 tons, in which case the Buyer may deposit the amount of his invoice in the Clearing House, and the amount so deposited shall be retained until delivery of the goods. The Seller shall be entitled to receive payment on account as delivery proceeds, such payment being calculated on the quantity delivered during the preceding day as certified by himself and the last Buyer. No obviously clerical errors in the documents shall entitle the Buyer to reject them or delay payment, but Seller shall be responsible for all loss or expense which such error may cause Buyer.

Policies.

Seller to give Policies and/or Certificates of Insurance (duly stamped) or approved letters of insurance for two per cent. over the invoice amount; any amount over this to be for Seller's account in case of total loss only. Insurance (including war risk) to be effected with approved English Underwriters and/or Companies, or with Foreign Underwriters and/or Companies paying losses on gold basis in England, and on Lloyd's conditions, guaranteed by approved English Companies. Seller not to be responsible for the solvency of Underwriters and/or Companies.

All Average to be for Seller's account, Buyer in such case to return Policies to Seller, and to furnish him with the usual documents required by Average Adjusters for preparation of Average Statement on settlement of final invoice. Should Average Statement be made up on the Continent, the deficiency or surplus account shall be settled as soon as the out-turn is ascertained, and the final account on Buyer handing back to Seller the Policy or Policies of Insurance, and the Average Statement.

The usual River Plate Strike Clause applies to this Contract.

Prohibition.

Should shipment be prevented by prohibition of export, blockade, or hostilities, this Contract, or any unfulfilled part thereof, shall be at an end.

Brokerage.

Seller to pay.....Brokerage of.....Contract cancelled or not cancelled.

Buyer and Seller agree that, for the purpose of proceedings, either legal or by arbitration, this Contract shall be deemed to have been made in England and to be performed there, any correspondence in reference to the offer, the acceptance, the place of payment or otherwise notwithstanding, and the Courts of England or Arbitrators appointed in England, shall, except for the purpose of enforcing any award made in pursuance of the Arbitration Clause hereof, have exclusive jurisdiction over all disputes which may arise under this Contract. Such disputes shall be settled according to the law of England whatever the domicile, residence, or place of business of the parties to this contract may be or become. Any party to this Contract residing or carrying on business elsewhere than in England or Wales, shall, for the purposes of proceedings at law or in arbitration, be considered as ordinarily resident or carrying on business at the offices of the Liverpool Corn Trade Association, Limited, and if in Scotland, shall be held to have prorogated jurisdiction as against himself to the English Courts, or if in Ireland, to have submitted to the jurisdiction and to be bound by the decision of the English Courts. The service of proceedings upon any such party, by leaving the same at the offices of the Liverpool Corn Trade Association, Limited, together with the posting of a copy of such proceedings to his address abroad or in Scotland or Ireland, shall be deemed good service, any rule of law or equity to the contrary notwithstanding.

Difference in quality shall not entitle the Buyer to reject, except under the award of Arbitrators or the Special Appeal Committee on Appeal.

All disputes from time to time arising out of this Contract, whether arising between the parties hereto, or between one of the parties hereto and the Trustee in Bankruptcy of the other party, shall be referred according to the Liverpool Arbitration rule endorsed on the Contract, and this stipulation may be made a rule of any of the divisions of His Majesty's High Court of Justice in Ireland, on the application of either contracting party, for the

purpose of enforcing an award against a party residing or carrying on business in Ireland.

The Arbitration to be held in LIVERPOOL.

◆ N.B.—The Clauses in Italics are alternative.

Contract No. 28 (PARCEL).

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CONDITIONS.

1. DECLARATION AND PROVISIONAL INVOICE.

(a) Notice of appropriation with vessel's name shall be sent by the Seller or his Agent to the Buyer within 14 days from the date of sailing or reported departure by Lloyd's List of the vessel from Argentina or Uruguay, but in no case later than 21 days from the last day of the period of shipment named in the Contract. Buyer shall on demand give Seller written receipt for notice of appropriation.

(b) Provisional Invoice, based on Bill of Lading or shipping invoice weight, with ship's name, and date of Bill of Lading shall be furnished by the Seller to his Buyer within seven days after date of sale or arrival of the documents in due course in Europe. Notice or Tender to the Broker or Agent shall be deemed a notice or tender within the terms of this Contract.

(c) In case of Re-sales, all Invoices, Notices, Declarations or Tenders shall be accepted by Buyer if passed on in due course.

2. BILL OF LADING to be considered proof of date of shipment in the absence of evidence to the contrary. Each shipment by separate vessel to be considered a separate contract.

3. NOTICE TO RETIRE DOCUMENTS shall be given by Seller, before 11 o'clock on the day previous to the day of payment, except on Saturdays when the time shall be 11 o'clock.

Notice or declaration required to be made under this Contract cannot be made on any of the following non-business days:—Sundays, Good Friday, Easter Monday, Whit Monday, the first Monday in August, Christmas Day, and the next week day following, and any other days proclaimed as Bank Holidays, and cannot be made to any party whose place of business is within the area of the Liverpool Telephone Exchange on any business day before 10 a.m. or after 5.30 p.m., and Saturdays 1 p.m.

4. (a) IF THE SELLER SHALL MAKE DEFAULT in shipping or declaring shipment, or in tendering the documents required by this Contract, the contract shall be closed by invoicing back the goods contracted for at such price as the Arbitrators shall determine, and this shall apply whether the price so determined be higher or lower than the Contract price.

(b) IF THE BUYER DEFAULTS in the fulfilment of Contract or Award, the Seller, at his discretion, shall, after giving notice in writing, have the right of re-sale, and the defaulter shall make good the loss, if any, by such re-sale on demand.

(c) IF, BEFORE THE MATURITY OF THIS CONTRACT, EITHER PARTY SHALL SUSPEND PAYMENT, OR BECOME BANKRUPT OR INSOLVENT, or become lunatic, or insane, or die without leaving executors or others willing and able forthwith to take over the liability attached to such party under the Contract, or be declared a defaulter by the Clearing House Committee, the Contract shall forthwith be closed at the market price then current for similar goods or, at the option of the other party, at a price to be ascertained by re-purchase or re-sale, as the case may be, before the expiration of the following business day, and shall be entitled to be paid by the party so suspending payment or committing an

act of bankruptcy, or to prove against his estate, whether wound up in bankruptcy or otherwise, for the loss, if any, or shall account for the profit, if any, on such re-sale or re-purchase, any rule of law or equity to the contrary notwithstanding.

5. ANY COMMISSION ON FREIGHT to be for Seller's benefit, but any discount for payment of freight in cash to be for account of Buyer.

6. ANY REDUCTION ON FREIGHT OR INSURANCE for ending voyage at any particular port to be for Buyer's benefit, but any return of premium of insurance for not going to the Continent to be for Seller's account.

7. PROMPT SHIPMENT shall mean within twenty-one running days from date of Contract.

8. The word "ABOUT," when referring to Quality shall mean the equivalent of threepence per 480 lbs., and when referring to Quantity shall mean five per cent., more or less. If the quantity named in this Contract is not fixed but is modified by the word "about" provisional and final settlements shall be made for the named quantity at Contract price, and for any variation within the prescribed limits from the named quantity at the market value of the goods on the day the vessel's name appears in the Bill of Entry.

Claims for Arbitration.

9. When Buyer claims ARBITRATION for quality and/or condition upon samples drawn and sealed, he shall, if he is the last Buyer, appoint his Arbitrator and give notice of such appointment to his Seller not later than ten running days after final discharge of shipment, but if he is an intermediate Buyer, then in due course after receiving notice from his Buyer. If the claim is for condition, the Seller, if he is the original Seller, shall appoint and instruct his Arbitrator within three business days after receipt of Buyer's nomination; and if he is an intermediate Seller, then in due course after receipt of nomination from his Seller. If the arbitration is delayed by either party without reasonable cause, the Arbitrators shall take such delay into account in making their award.

Finality Rule.

10. ARBITRATION ON QUALITY having been claimed in accordance with the terms of this Contract the parties claiming must proceed with the Arbitration within 28 days of final discharge when sold on sample, or when sold fair average quality within 28 days of the publication in the Trade List that the Standard has been, or will not be made up. After the expiration of these limits, claims for quality to be void, unless the delay is, in the opinion of Arbitrators, considered justifiable. In all arbitrations on quality of wheat the allowance (if any) already made for deficiency in guaranteed natural weight shall be taken into consideration. The Seller shall not be required to make any allowance for inferiority amounting to less than 3d. per quarter, but this stipulation shall not apply if the inferiority amounts to 3d. per quarter or over.

In case of re-sale where the first Seller's price is different to that of the last Buyer, settlement for any allowance in respect of natural weight shall be based upon the market value of the goods on the day the vessel's name appears in the Bill of Entry.

11. For purposes of arbitration and natural weight allowances Sellers shall not be required to draw separate sealed samples from parcels of less than 500 tons, when such parcels form part of a larger quantity.

12. REGISTRATION. Either party to this Contract, whether a member or non-member of the Association, shall have the right at any time during its currency to register it at the Clearing House, but it shall not be subject to Calls for Margin.

**ARBITRATION RULE OF THE LIVERPOOL CORN TRADE
ASSOCIATION, LIMITED,**

AS APPLIED TO THIS CONTRACT.

All disputes arising out of transactions connected with the Trade, except such as arise out of the business of the Clearing House, shall be referred to two arbitrators, one to be chosen by each party in difference, the said arbitrators having power to call in a third in case they shall deem it necessary. In the event of one of the parties appointing an arbitrator and the other refusing, or for three days after notice in writing of the appointment neglecting to do so (such notice to be delivered personally or left at the usual place of business of such other party), or in case the arbitrators appointed by the parties shall not within seven days after their appointment agree to an award, or appoint a third arbitrator, or, after the appointment of such third arbitrator, in case of the death, refusal to act, or incapacity of any one or more of such three arbitrators, or in any case in which the Clearing House Regulations may so provide, then, upon application of either of the disputing parties, the question in dispute shall stand referred to two arbitrators to be nominated by the President for the time being of the Association, or by the Vice-President in case of the absence of the President, his illness, or interest in the matter in dispute; and in case of the absence of the Vice-President, his illness, or interest in the matter in dispute, then the Directors, on the application of either of the disputing parties, shall appoint two arbitrators; and in case the two arbitrators appointed, whether by the President, the Vice-President, or the Directors, shall not within seven days after their appointment agree to an award, or choose a third arbitrator, then the Directors shall appoint a third arbitrator, and shall, in the case of the death, refusal to act, or incapacity of any such three arbitrators, from time to time substitute a new arbitrator or arbitrators in the place of the arbitrator or arbitrators so dying, refusing or incapacitated.

In case either party shall be dissatisfied with any award of arbitrators, a right of appeal shall lie to the Directors, provided it be claimed not later than seven running days after the date of the award.

The arbitrators appointed shall in all cases be members of the Association, and no person having any interest in the matter in dispute shall be competent to act as an arbitrator.

The award of any two arbitrators in writing signed by them (subject only to the right of appeal hereinafter mentioned) shall be conclusive and binding upon all disputing parties, both with respect to the matter in dispute, and all fees and expenses of the reference and award. Every award shall be written on a form to be settled by the Directors and supplied by the Association at a charge (to be fixed by the Directors) not exceeding ten shillings.

No arbitrator shall be entitled to demand a higher fee than £5 5s., nor shall such fee be less than £1 1s. for every requisite sitting.

Where an appeal is claimed the appellants shall pay to the Association as a fee for the investigation, the sums following:—

	Members.	Non-Members.
For appeals in respect of quantities not exceeding 250 tons	£5 0 0	£7 10 0
For appeals in respect of quantities exceeding 250 tons	£10 0 0	£15 0 0

When any question of quality and/or condition is involved, the Directors shall not hear the appeal, but shall appoint a Special Appeal Committee of six to hear and determine the matter. Directors and other Members of the Association shall be eligible for appointment on such Special Appeal Committee. In case of the death, refusal or neglect to act or incapacity of not

more than two Members of the Special Appeal Committee, the remaining Members shall forthwith fill up the vacancy or vacancies so occurring. In case of the death, refusal or neglect to act or incapacity of more than two Members of the Special Appeal Committee, the Directors shall fill up the vacancies so occurring. The Special Appeal Committee shall confirm the award appealed from and the appeal fees shall follow the award unless two-thirds of the Members hearing such appeal shall decide to vary such award. The Special Appeal Committee shall have power to award by whom the Arbitrators' fees and any legal or other expenses incurred by the Association shall be borne, but no award shall be made in respect of such fees and expenses except by the vote of two-thirds of the Members hearing the case.

In appeals (other than quality and/or condition) the Directors shall decide all questions, including the payment of Arbitrators' fees and any legal or other expenses incurred by the Association, by a majority of votes, and in the event of an equality of votes, the Chairman shall have a second or casting vote.

If the Directors or the Special Appeal Committee, as the case may be, shall see fit to state in the form of a special case for the opinion of the Court any question of law arising in the course of the reference, or if they shall be directed so to do, the Association shall be entitled to an addition to their fee not exceeding £15 for every requisite sitting. The Arbitrators, Directors or Special Appeal Committee, as the case may be, shall have power from time to time to make interim awards.

An award signed by the Chairman of the meeting which shall hear such appeal, and countersigned by the Secretary or his substitute, shall be deemed to be the award of the Directors or the Special Appeal Committee, as the case may be, and shall in all cases be final.

No party shall have the right to be heard on appeal until he has paid the fees and other arbitrators' expenses payable by him on the award in respect of which the appeal is made.

No Director having any interest in the matter in dispute shall vote on the question of the appointment of arbitrators, or, in the case of an appeal, sit or vote on the hearing of such appeal, or on the appointment of any Special Appeal Committee; nor shall the arbitrators whose decision is appealed against, vote on the hearing of this appeal.

Neither contracting party, nor Trustee in Bankruptcy, or other person claiming under either of them, shall bring any action against the other of them in respect of any dispute until such dispute has been settled by arbitrators, the Directors, or the Special Appeal Committee, as the case may be, and it is expressly agreed that the obtaining of an award shall be a condition precedent to the right of either contracting party to sue the other in respect of any such dispute.

For the purpose of enforcing any award, the provisions of the Arbitration Act, 1889, or any statutory modification or re-enactment thereof shall apply in England, and the provisions of any Scotch or Irish Act dealing with arbitrations or the procedure thereon shall apply respectively in Scotland and Ireland, and any award may if necessary be made a Rule of Court in Ireland, or an Order of the Court of Session in Scotland.

If the Directors or the Special Appeal Committee as the case may be shall state or be directed to state a Special Case for the opinion of the Court, the party at whose request or instance the Case is to be stated shall deposit with the Association the sum of £100 as security for the fees, costs and expenses of the Directors, or the Special Appeal Committee, and the Association of and incidental to stating and setting down such Special Case.

If the party requiring the Case to be stated shall neglect or fail to make such deposit within seven days after the Directors or the Special Appeal Committee have agreed or been directed to state a Case, the Directors or the Committee, as the case may be, shall be entitled to proceed with their award without stating such case, and in any order directing the Directors or

Committee to state a Special Case the party requiring the Case to be stated shall consent to abide by the provisions of this paragraph and to make the said deposit within the time aforesaid. If at any time after the Directors or the Special Appeal Committee have agreed or been directed to state a Special Case, but before a final award has been made, the parties in difference shall settle their dispute, the Directors or the Committee as the case may be shall satisfy themselves that such dispute is settled and thereupon the Directors or the Committee and the Association shall be entitled to payment of their fees, costs and expenses in connection with the Special Case out of the said deposit and the Association shall account for the balance, if any, to the party by whom the deposit was paid. If the matter in dispute shall not be settled between the parties but a final award shall be made, the manner in which the said deposit shall be dealt with shall be in the discretion of the Directors or the Committee making the award.

APPENDIX V

SPECIMENS OF THE CONTRACT FORMS IN USE IN THE LIVERPOOL COTTON MARKET.

Form 5b is the futures contract form in the case of American cotton.

LIVERPOOL COTTON ASSOCIATION, LIMITED.

[Face]

CONTRACT FORM I.

CONTRACT NOTE FOR SPOT COTTON ("FIXED PRICE").

(1st June, 1912.)

Liverpool,.....19

Messrs.....

Dear Sirs,

We have this day

the following COTTON :—

Mark.	Number of Bales.	Description.	Ship.	Price.	
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Rule 365.—Payment for all descriptions of Cotton, except Sea Island growths and Egyptian, shall be made in cash within ten days from Invoice

date, or before delivery, if required. Payment for all Sea Island growths and Egyptian shall be made in cash, less one-and-half per cent. discount, within ten days from Invoice date, or before delivery, if required, provided no other terms of payment have been specially arranged between buyer and seller at the time the Contract is made.

This contract shall not be cancelled on any ground and is subject to the "Rules of the Liverpool Cotton Association" whether endorsed hereon or not, and in case of any question or dispute the matter shall be settled in accordance with such Rules.

Yours faithfully,

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LIVERPOOL COTTON ASSOCIATION, LIMITED.

CONTRACT FORM I.

332.—If any bale or bales are found to be not equal to the selling sample they shall be exchanged once at the option of the seller. If the seller does not exercise this option, or if any bale or bales thus substituted are not equal to the selling sample, the buyer shall have the right to invoice back the inferior bales according to the provisions of Rule 570; and if the quantity of such inferior bales exceeds 10 per cent. of the Contract the buyer shall have the option of invoicing back the whole Contract under the provisions of Rule 570.

337.—Cotton must be taken by the buyer within ten days from Invoice date. In default, the seller may, after due notice, weigh it over at the expense and risk of the buyer, who shall pay to the seller all reasonable charges incurred, including fire insurance and warehouse rent from the tenth day.

338.—When receiving Cotton from the warehouse or quay the buyer, before weighing, shall have the right to demand the removal of double canvas put on after arrival at Port of Discharge.

348.—The allowance for the weight of bands, ropes, or wires, upon bales of American and unpressed Brazilian Cotton, shall be arrived at by weighing 10 (or 20 if required by either party) of such bands, ropes, or wires, as shall be agreed upon between the representatives of the buyer and seller at the scale as being of an average weight; and such shall be weighed so as to express the weight of same in pounds and quarters of a pound. The whole number of bands, ropes, or wires, upon each lot shall be counted, and the allowance made in respect of them shall be in proportion to the weight as above ascertained of the 10 or 20 bands, ropes, or wires, which have been weighed as above.

349.—The buyer shall have a right to claim, at the time of delivery, that the actual tare shall be ascertained in his presence, which shall then be the tare allowed in the invoice, and any subsequent claim cannot then be enforced. If at the time of delivery the actual tare be not ascertained, the buyer shall afterwards be entitled to recover for insufficient allowance for canvas, provided the deficiency amounts to $\frac{1}{4}$ lb. per bale on each lot, as defined in Rule 315, but not otherwise. Such claims must be properly substantiated and be made within ten days and three months from Invoice date. When a lot of Cotton has been divided on re-sale, the original seller shall only be liable to pay claims for deficient allowance for canvas when it amounts to $\frac{1}{4}$ lb. per bale on the whole lot.

350.—When Cotton is overtared, the buyer shall be allowed to retain the excess canvas, without making any allowance to the seller for the same.

351.—The actual tare (exclusive of draft) shall be ascertained as follows :—When the lot numbers 50, or less, 5 bales; when more than 50, up to 70 inclusive, 7 bales; and more than 70, 10 bales; or more or less, as may be

agreed upon, shall be taken indiscriminately, stripped of their canvas, and tared as follows:—For American Cotton the tare shall be ascertained by weighing the canvas separately, and also collectively; but the allowance for canvas made on the invoice shall in no case exceed the rate as ascertained by the latter mode. The allowance shall be calculated at the exact relative proportion of the weight of the bales stripped to the total weight of the whole lot. The allowance for canvas must be calculated on the weight of the bales after the weight of the bands has been deducted, and before the allowance for draft has been deducted. In other growths the tare shall be ascertained by weighing the canvas, bands or ropes, and bars separately, and also collectively; but the tare allowed in the invoice shall in no case exceed the rate as ascertained by the latter mode. The allowance shall then be calculated on the whole lot in the exact relative proportion of the number of bales stripped to the total number of bales. Mended bales of all descriptions shall be tared separately.

352.—When Cotton is not sold with actual tare and actual tare shall have been demanded and it shall prove not to exceed the customary allowance for tare, the whole expense of taring shall be borne by the buyer, otherwise it shall be borne by the seller.

353.—The canvas used for mending Cotton in Liverpool shall not exceed 2½ lbs. per yard, and should it be found that heavier canvas has been used the seller shall be liable for all expense which the buyer may incur in establishing his claim for such excess.

369.—If any buyer fail to fulfil his Contract before noon of the day after the expiration of ten days from Invoice date, the seller shall be at liberty after giving twenty-four hours' notice in writing, to re-sell the Cotton, and the buyer shall made good the loss resulting from the re-sale of such Cotton, upon a statement of the ascertained loss being rendered to him.

375.—Claims for falsely-packed, damaged, or unmerchantable Cotton, and for stones, etc., will be allowed at the value of the sound Cotton at the date of return, if such return be made and the claim sent in within ten days and three months from Invoice date, such claims if allowed shall bear interest from the tenth day after the date of claim.

376.—In claims for falsely-packed Cotton the bales shall, if possible, be returned entire, and not the inferior portion only; but if only a part of the bale be returned it shall not invalidate the claim. In claims for damaged Cotton, stones, etc. found in any bale, the unmerchantable portion only shall be returned, with a certificate stating the marks and numbers on the bales complained of, and the quantity found in each bale, but the absence of the marks and numbers of the bales shall not necessarily invalidate the claim. Bales are not to be considered falsely-packed, more especially in the lower grades, when only a slight irregularity exists, which has been fairly represented in the selling or arbitration samples.

377.—In the event of any portion of the Cotton being country damaged or damaged by or from the effects of salt water, or from any accident of the voyage, or damaged by or in consequence of fire, and thereby rendered unmerchantable, such portion shall be invoiced back, as provided for in Rule 570.

378.—Reasonable charges for carriage, cartage, portorage, etc., shall be allowed in reference to Cotton returned, but not for expenses incurred out of Great Britain.

382.—If in the opinion of two qualified persons Cotton turns out at time of delivery to be damp or wet, and if such arbitrators consider an allowance of at least 10 lbs. per bale of 480 lbs. average net weight, if American Cotton, to be due thereon (and this shall be the ratio in cases of damp occurring in growths other than American), the buyer shall have the option of closing the whole of the Contract, or any bale, or bales, under the provisions of Rule 570.

384.—Claims for errors in weight and insufficient tare shall be allowed

at the original invoice price, if made within ten days and three months from the Invoice date, provided they are properly substantiated.

385.—Claims for clerical errors in invoices shall be allowed when properly substantiated.

LIVERPOOL COTTON ASSOCIATION, LIMITED.

[Face]

CONTRACT FORM 5b.

BALES.

AMERICAN COTTON DELIVERY CONTRACT NOTE.

(Adopted 27th January, 1919.)

(For trading from 3rd February for delivery in May and onwards.)

Liverpool,.....191

Messrs.....

DEAR SIRs,

We have this day..... to you,

to be DELIVERED ex Warehouse in Liverpool during
 lbs. AMERICAN COTTON net
 weight to be contained in AMERICAN BALES, more or less,
 of any grade not lower than LOW MIDDLING (equal in colour to the stan-
 dard and fair staple), or if tinged or stained, of any grade which (irrespective
 of allowance to Seller for staple) is at least equal in value to LOW MIDDLING
 (equal in colour to the standard and fair staple) at the price of
 pence per lb. for FULLY MIDDLING (equal in colour to the standard and
 fair staple), with additions or deductions for such other qualities as are
 within the Contract according to their value as compared with the spot
 value of FULLY MIDDLING (equal in colour to the standard and fair
 staple) on the day the Cotton is tendered.

There shall not be more than one tender nor more than three lots for
 each 48,000 lbs., and each 48,000 lbs. shall be treated as a separate Contract.
 The additions or deductions for quality shall be settled by arbitration, but
 any lot not in accordance with the Contract, or any bales below, or of less
 value than LOW MIDDLING (equal in colour to the standard and fair
 staple) may be returned by the Buyer under the provisions of Rule 261.

In the event of Cotton of staple better than $1\frac{1}{8}$ ths inch being tendered,
 the seller shall make an allowance to the buyer of 20 per cent. of the excess
 value of such Staple Cotton over $1\frac{1}{8}$ ths inch.

The Contract, of which this is a note, is made between ourselves and
 yourselves and not by or with any person, whether disclosed or not, on
 whose instructions or for whose benefit the same may have been entered into.

This Contract is on "Settlement terms," and is therefore subject to
 Weekly Payments as provided for in the Rules.

In the event of the Seller failing to tender against this Contract, it shall
 be closed by being invoiced back to the Seller at the Spot price of Fully
 Middling on the last business day of the month plus an allowance of $\frac{1}{16}$ d. per
 lb. The invoicing back price including the allowance shall, however, under
 no circumstances exceed the Official Value of Fully Middling by more than
 10 per cent. The Official Value of Fully Middling shall be based on the
 prices ruling in the following group of three Atlantic Markets—Augusta,
 Norfolk and Savannah—or the following group of three Texas Markets—
 Dallas, Galveston and Houston—whichever group is the lower, and shall be
 calculated in the same way as the Official Value was during the operation of
 the Emergency Contract (25th September, 1917).

This Contract shall not be cancelled on any ground and is subject to the
 "Rules of the LIVERPOOL COTTON ASSOCIATION, LTD." and in case of any

question or dispute the matter shall be settled in accordance with the Rules as in force at the date of this Contract.

The Contract, of which the above is a note, was made on the date specified, within the business hours fixed in the Rules.

Yours faithfully,

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[Back]

LIVERPOOL COTTON ASSOCIATION, LIMITED.

CONTRACT FORM 5b.

502.—The seller shall tender the Cotton, with particulars of marks, number of bales and ship's name, to the buyer not later than noon on the last day available for delivery under the Contract, and shall be able to give immediate delivery. If he fail to do so the Contract shall be closed by being invoiced back at a price to be fixed by Arbitration or Appeal, which shall be not below nor more than $\frac{1}{16}d.$ ($\frac{1}{2}d.$) per lb. above the official mid-day spot quotation of the Cotton contracted for.

263.—If it be decided by Arbitration or Appeal that an attempt has been made to evade the terms of the Contract in respect of the quality or quantity of the Cotton tendered, then the Buyer shall have the option of taking the Cotton at the allowances fixed by Arbitration or Appeal or of invoicing the Contract back to the Seller at a price to be fixed by Arbitration or Appeal on the basis of any value ruling for Spot or Futures between the day of tender and the day of Arbitration or Appeal, plus a penalty not exceeding $\frac{1}{16}d.$ ($\frac{1}{2}d.$) per lb.

522.—There shall not be more than one tender for each 48,000 lbs.; the buyer shall not be required to receive this weight from more than two warehouses, nor to receive more than three lots, nor to receive any bale weighing less than 300 lbs. gross, or more than 672 lbs. gross. Slight variations in marks shall not be deemed material.

523.—Subject to the provisions of Rule 263, settlement shall be made for any variation from the weight specified on the face of the Contract, not exceeding 100 lbs. on each 48,000 lbs., on the basis of the spot quotation on the day of Arbitration or Appeal of the Cotton contracted for. Should the variation in weight be more than 1000 lbs. and not more than 3000 lbs. then settlement for the whole difference shall be made, if an excess, at $\frac{1}{16}d.$ per lb. below—if a deficiency, at $\frac{1}{16}d.$ per lb. above the spot value on the day of Arbitration or Appeal of the Cotton contracted for; but if the variation be more than 3000 lbs. then settlement for such whole difference shall be made at a price to be decided by arbitration, which shall, if a deficiency, be not less than $\frac{1}{16}d.$ per lb. nor more than $\frac{1}{16}d.$ per lb. above—if an excess, not less than $\frac{1}{16}d.$ per lb. nor more than $\frac{1}{16}d.$ per lb. below the spot value on the day of Arbitration or Appeal of the Cotton contracted for; or, the buyer shall have the option of returning the whole excess to the nearest bale, at the seller's expense, at the spot value on the day of Arbitration or Appeal of the Cotton contracted for, such option to be declared not later than the day following that on which the weighing-over is completed.

503.—The Cotton shall be taken from the warehouse with customary allowances of tare and draft, and the invoice shall be dated on the day of tender. All Cotton tendered shall be weighed over and invoiced to the buyer.

336.—All Cotton shall be delivered in merchantable condition to the buyer.

375.—Claims for falsely-packed, damaged, or unmerchantable Cotton and for stones, etc., will be allowed at the value of the sound Cotton at the date of return, if such return be made and the claim sent in within ten days and three months from Invoice date, such claims if allowed shall bear interest from the tenth day after the date of claim.

504.—In the event of loss or damage by, or in consequence of fire, after the Cotton shall have been declared, and before it shall have been weighed over to the buyer, the Contract for any portion so lost or damaged shall be closed at the spot value of the quality specified as the basis of the Contract on the day the buyer is notified of such loss or damage, as provided in Rule 570.

260.—Applications for Arbitration, with regard to quality on Docket Cotton, shall be made within seven days of date of tender, in the manner provided in Rule 667.

261.—In Arbitrations or Appeals on American Cotton tendered on a "docket," due regard shall be given to any exceptional qualities of the Cotton tendered—whether for or against—but if the Cotton tendered or any lot included in it (or any bale or bales in a lot which is otherwise in accordance with the Contract) be below or of less value than Low Middling (equal in colour to the standard fair staple), the buyer shall have the option of taking such lot, bale or bales, at the allowances fixed by Arbitration or Appeal, or of invoicing it back to the seller at the spot value in accordance with Rule 570. The Arbitrators or Appeal Committee may, if they see fit, impose a penalty not exceeding $\frac{1}{4}$ d. per lb. and in that case such penalty shall be added to the spot value.

524.—All payments shall be made, in cash, before delivery, within ten days from Invoice date.

505.—Payments on account before weighing shall be based on the Contract weight plus or minus allowances for quality in accordance with Rule 668.

369.—If any buyer fail to fulfil his Contract before noon on the day after the expiration of ten days from Invoice date the seller shall be at liberty, after giving twenty-four hours' notice in writing, to resell the Cotton, and the buyer shall made good the loss resulting from the resale of such Cotton, upon a statement of the ascertained loss being rendered to him.

509.—When the subject matter and terms of Contracts are identical except as to price, all Arbitrations shall be held in accordance with the Rules as between the First Seller and Last Buyer as though they were contracting parties, and any award made in pursuance thereof, subject to the right of Appeal as provided by the Rules, shall be binding on all intermediate parties, subject to the provisions of Rules 690 to 692.

LIVERPOOL COTTON ASSOCIATION, LIMITED.

AMERICAN COTTON. PORT AND/OR CUSTODY BILL OF LADING.
COST, FREIGHT AND INSURANCE CONTRACT NOTE.
(25th August, 1919.)

[Face]

CONTRACT FORM 10.

Liverpool,

MESSRS.....
.....

DEAR SIRS,

We have this day.....

.....Bales.....COTTON, averaging, per
100 Bales gross, 50,000 lbs. for all descriptions excepting Texas, Arkansas
and Memphis Cotton, which shall average 53,000 lbs. and all other Gulf
Cotton, including Alabama and Oklahoma, which shall average 51,000 lbs.
per 100 bales gross (a variation of 5 per cent. allowed), Cost, Freight and
Insurance, for.....

(a) at.....per lb.

OR

(b) at.....points..... the Seller's price of..... delivery (Fully Middling American, L.M.C.) in Liverpool at the time of call. The Cotton to be called in accordance with the provisions of Rule 442, as endorsed hereon, and in lots of not less than 100 bales, unless otherwise mutually agreed.

To be invoiced at American actual gross weight, less an allowance of six per cent.

(a) Gross landing weight guaranteed to be within one per cent. of gross invoice weight.

OR

(b) Net weight (that is actual weight of bales, less bands and 3 1/8 per cent. allowance for Canvas after deduction of bands) guaranteed by Sellers equal to Net American invoice weight. Settlement to be made with mutual allowances as to weight.

To be shipped during..... per from..... to via

Invoice with full particulars to be rendered to the buyer within four weeks of the date of Bill of Lading.

Marine Insurance (covering risk to Mill or Warehouse but not covering war risk) shall be provided by the seller with.....including particular average and country damage, and covering 5 per cent. in excess of Invoice cost, or in the case of Cotton sold on "Call" 5 per cent. in excess of market value up to the "Call" price, in accordance with Rule 442. Any amount over this shall be for seller's account in case of total loss only. The cost of stamping documents to be borne by the seller.

After the date of the "Call" Marine Insurance on any increase in value over and above the "Call" price is at buyer's risk.

In case of any casualty occurring after declaration has been made (the Cotton not having been "Called" previously), the seller shall immediately notify the buyer, in writing, of the same, and the "Call" shall be made not later than noon of the first business day following such notification.

(1) Reimbursement by M.....Drafts upon M.....at.....days' sight for Invoice amount. The buyer guarantees the due protection of the Drafts on presentation and payment at maturity.

(2) The due date of Invoice shall be the 75th day after date of Bill of Lading, payable in Liverpool.

(a) Payment shall be made in exchange for Shipping Documents on, or (at buyer's option) before arrival of the Vessel or Vessels; or, failing previous arrival, not later than due date, by cash, less customary rebate for any prepayment.

OR

(b) Payment shall be made in exchange for delivery of the Cotton as it may arrive (the buyer paying all Liverpool charges) by cash, less customary rebate for any payment made before due date, or plus interest at 5 per cent. per annum, for any payment made thereafter. If any Cotton declared under this Clause be lost in transit, the Contract for such Cotton shall be completed by the seller collecting for the buyer the excess agreed to be insured over invoice amount. In the event of damage, covered by Marine Insurance Policy, the seller shall collect the amount of same from the Underwriters, on buyer's account.

No allowance to seller. Should arbitration be demanded by the buyer the Cotton shall be subject to mutual allowances, except in the case of average shipment. Should any lot prove inferior to.....

..... the buyer to have the option of accepting the Cotton, or of returning it to the seller, under the provisions of Rule 468.

This Contract shall not be cancelled on any ground, and is subject to the "Rules of the LIVERPOOL COTTON ASSOCIATION, LTD.," whether endorsed hereon or not, and in case of any question or dispute the matter shall be settled in accordance with such Rules as in force at the date of this Contract.

No penalty.

Yours faithfully,

.....

[Back]

LIVERPOOL COTTON ASSOCIATION, LIMITED.

CONTRACT FORM 10.

298.—" Prompt " or " Immediate " shipment or sailing means shipment or sailing not earlier than date of Contract nor later than 14 days after.

299.—" Shipping or shipped " means shipment within 14 days either before or after the date of Contract.

303.—A " Port Bill of Lading " means a Bill of Lading which is signed on behalf of the ship by the captain or duly authorised agent of the ship, both vessel and Cotton being in port and the Cotton itself having been actually delivered to the captain, the shipowner or the authorised agent in the port of shipment.

304.—A " Custody Bill of Lading " is a Bill of Lading which is signed when the Cotton is in the port and duly delivered to the captain, the shipowner or the authorised agent, and a master's or agent's receipt must be furnished proving that the Cotton has been actually shipped within three weeks from date of Bill of Lading. Substitution of another vessel of different ownership for the one named in the Bill of Lading is only permissible in case the named vessel is lost or in case of accident or other unforeseen event of *force majeure*.

431.—The Bill of Lading, duly signed, shall be accepted as evidence of the shipment stipulated for in the Contract.

432.—Should the seller fail, within the specified time, to render invoice or to make complete and correct declaration of marks and ships' names, or particulars contained in Bill of Lading, the buyer shall have the right of closing the Contract (*i.e.* by invoicing it back to the seller) under the provisions of Rule 570, provided he exercises this right within 14 days from the expiration of the specified time. If the seller renders invoice or makes the required declaration after the expiration of the specified time, the buyer must declare his intention to close the Contract not later than the next business day following the seller's declaration. Slight variations in marks shall not be deemed material.

Should the buyer (a) in case of Interior Shipments within six weeks of receipt of invoice or (b) in case of shipment from a Port within four weeks of receipt of invoice, be able to prove that the particulars as stated in the Bill of Lading are incorrect and/or not in accordance with the terms of the Contract, the matter shall be referred to arbitration, and it shall be at the discretion of the arbitrators to decide either that the buyer shall accept the Contract at an allowance as fixed by the arbitrators, or that the buyer shall have the option of closing the Contract under the provision of Rule 570 or of accepting it at an allowance as fixed by the arbitrators.

433.—It shall not be deemed an infringement of the Contract if the Cotton, or any portion, is shut out from the vessel or vessels named provided the Bill of Lading conforms with the definitions in Rules 303 or 304. This shall apply only to Contracts for shipment and not to Contracts made for sailing or clearance.

436.—Should the variation in weight on American or East Indian Cotton exceed 5 per cent., then the difference in excess thereof shall be settled for at the market value on the last day of lading of the Cotton contracted for.

435.—Gross landing weight shall be ascertained by weighing the Cotton at Port of Discharge on arrival, before sampling (or if already sampled an allowance to be made for the samples drawn).

- (a) In case of sea or country damage, condemned bales shall be accounted for at the average invoice weight, but bales that will mend shall be weighed and the customary allowances deducted from gross landing weight for water in pickings and rags.
- (b) Allowance shall be made for ship's pickings.
- (c) Any bales condemned or not delivered and "No Mark" bales compulsorily received from the ship shall be calculated as delivery at the average gross invoice weight in respect of guaranteed weight, and at the average grade of "Marked" bales.
- (d) Claims for loss in weight or variation in weight or country damage shall be made within 28 days from last day of landing, but if more than 25 per cent. of the Cotton requires picking and mending, claims may be sent in within 42 days from the last day of landing. Claims for loss in weight shall be made at the Invoice price.
- (e) When Contracts for American and Egyptian Cotton are made for shipments, sailings or deliveries of specified quantities during various months, each month's shipment, sailing or delivery shall form one weight settlement, even if shipped or arriving by more than one vessel, except as regards any portion of the Contract of which the invoice weights have been ascertained at port of arrival.
- (g) When 95 per cent. of the Cotton contracted for has arrived, claims for loss in weight may be made subject to a final weight adjustment upon arrival of the balance of the Cotton.

451.—The following additional Clauses apply to c.i.f. Contracts made with the 1 per cent. franchise clause:—

- (a) In determining any loss in weight, allowance shall be made for missing bands.
- (b) Should the weight of bands as ascertained at the time of weighing (see Rule 348) exceed 900 lbs. = 408 kilos per each 100 bales then the buyer shall have the right to deduct such excess from the landing weight. The seller is not entitled to any allowance for bands should the weight be less than 900 lbs.
- (c) When the American Invoice weight is not obtainable and in consequence thereof the Invoice weight has to be ascertained at port of arrival, 3 lbs. per bale shall be allowed to the seller for slipping of bands and canvas at time of compressing.
- (d) No claims shall be made for variation in weight under Rule 436 for any excess of landing over Invoice weight.
- (e) Claims for loss in weight shall be made at the invoice price subject to deduction of 6 per cent. tare, minus 1 per cent. guarantee clause, equal to 5 per cent. on difference in weight.

467.—Claims for allowances for internal damp shall be made within 28 days from the last day of landing. Claims for external damp, not recoverable under Rule 435 (a), shall be made at the time of weighing and deducted from the landing weight.

450.—Should the weight of canvas on any lot or mark exceed $3\frac{1}{8}$ per cent. of the weight after deduction of actual weight of bands, then the buyer shall have the right to claim for such excess at the invoice price.

473.—If on arrival in Liverpool, the actual tare be not ascertained, the buyer shall afterwards be entitled to recover for insufficient allowance, provided the deficiency amounts to $\frac{1}{4}$ -lb. per bale on any entire shipment as defined in Rule 435 (e), but not otherwise. Such claims must be properly substantiated, and be made within two months from last day of landing. If a portion of the Cotton has been tared on arrival, then any claim for overtare made on such portion shall be included in calculating the minimum deficiency of $\frac{1}{4}$ -lb.

434.—Falsely-packed or unmerchantable Cotton, together with the original tares, shall, if required by seller, be returned to the Port of Discharge at the buyer's expense. Claims, if properly substantiated, shall be allowed at the value of the sound Cotton on the day of return, if such return be made and the claim sent in within three months from last day of landing.

438.—When Cotton shall arrive by more than one vessel, there shall be a separate Arbitration for each shipment unless otherwise agreed.

470.—Application for Arbitration with regard to quality on American and East Indian Cotton shall be made within ten days from the last day of landing, and the Arbitration shall proceed within fourteen days from the date of such application, unless otherwise mutually agreed by buyer and seller, on the basis of the difference between grades or values ruling on the tenth day from the last day of landing unless the Arbitration has been held prior to that date.

245.—Arbitration, upon Cotton sold to average any particular grade, shall be settled by classing the different lots, placing grades or fractions of grades above, against grades or fractions of grades below, and passing whatever part turns out an average of the grade guaranteed, making an allowance on the remainder.

246.—When Cotton is sold equal to either a type, or sample, of uncom-pressed Cotton, the re-drawn samples shall be exposed to the air for 24 hours before the Arbitration takes place. An allowance for " Bloom " shall be made between the selling type or sample and the re-drawn samples ; should the latter be below the guarantee clause an allowance for " Bloom " shall be made in valuing the type or sample.

468.—If, under the guarantee clause on the face of the Contract, the buyer exercises his option of invoicing back any portion, such Cotton shall be returned at re-weights and on such conditions as apply to spot sales, except that cash shall be paid before delivery, the buyer having paid all landing and warehousing charges.

442.—If Cotton is sold on " c.i.f." terms " On Call," the call must be made not later than the next business day but one after the declaration of marks and ships' names ; in default thereof the price for the uncalled Cotton shall be fixed on the basis of the official closing values on that day : should however the seller agree, the call may be extended at the request of the buyer, in which case the buyer shall undertake to pay to the seller the insurance premium necessary to cover any increased value from the date of declaration to the date of call. The extension of call shall in no case extend beyond the tenth day after the last day of landing.

[Face]

LIVERPOOL COTTON ASSOCIATION, LIMITED.

AMERICAN COTTON. THROUGH (CONFERENCE) BILL OF LADING
COST, FREIGHT AND INSURANCE CONTRACT NOTE.

(25th August, 1919.)

CONTRACT FORM II.

Liverpool.....

MESSRS.....

DEAR SIRS,

We have this day.....

.....Bales.....COTTON, averaging, per
100 Bales gross, 50,000 lbs. for all descriptions excepting Texas, Arkansas
and Memphis Cotton, which shall average 53,000 lbs. and all other Gulf
Cotton, including Alabama and Oklahoma, which shall average 51,000 lbs.

per 100 bales gross (a variation of 5 per cent. allowed), Cost, Freight and Insurance, for.....

(a) at.....per lb.

OR

(b) at.....points.....the Seller's price of..... delivery (Fully Middling American, L.M.C.) in Liverpool at the time of call. The Cotton to be called in accordance with the provisions of Rule 442, as endorsed hereon, and in lots of not less than 100 bales, unless otherwise mutually agreed.

To be invoiced at American actual gross weight, less an allowance of six per cent.

(a) Gross landing weight guaranteed to be within one per cent. of gross invoice weight.

OR

(b) Net weight (that is actual weight of bales, less bands and 3/8 per cent. allowance for Canvas after deduction of bands), guaranteed by Sellers equal to Net American invoice weight. Settlement to be made with mutual allowances as to weight.

To be shipped during..... per Rail and/or Steamer from.....in the Interior of the United States of America to.....and thence to.....

Invoice with full particulars contained in Through Bill of Lading to be rendered to the buyer within four weeks of the date of Bill of Lading.

Marine Insurance (covering risk to Mill or Warehouse but not covering war risk) shall be provided by the seller with.....including particular average and country damage, and covering 10 per cent. in excess of Invoice cost, or in the case of Cotton sold on " Call " 10 per cent. in excess of market value up to the " Call " price, in accordance with Rule 442. Any amount over this shall be for seller's account in case of total loss only. The cost of stamping documents to be borne by the seller.

After the date of the " Call " Marine Insurance on any increase in value over and above the " Call " price is at buyer's risk.

In case of any casualty occurring after declaration has been made (the Cotton not having been " Called " previously), the seller shall immediately notify the buyer, in writing, of the same, and the " Call " shall be made not later than noon of the first business day following such notification.

(1) Reimbursement by M.....Drafts upon M.....at.....days' sight for Invoice amount. The buyer guarantees the due protection of the Drafts on presentation and payment at maturity.

OR

(2) The due date of Invoice shall be the 75th day after date of Bill of Lading, payable in Liverpool.

(a) Payment shall be made in exchange for Shipping Documents on, or (at buyer's option) before arrival of the Vessel or Vessels; or, failing previous arrival, not later than due date, by cash, less customary rebate for any prepayment.

OR

(b) Payment shall be made in exchange for delivery of the Cotton as it may arrive (the buyer paying all Liverpool charges) by cash, less customary rebate for any payment made before due date, or plus interest at 5 per cent. per annum, for any payment made thereafter. If any Cotton declared under this Clause be lost in transit, the Contract for such Cotton shall be completed by the seller collecting for the buyer the excess agreed to be insured over invoice amount. In the event of damage, covered by Marine Insurance Policy, the

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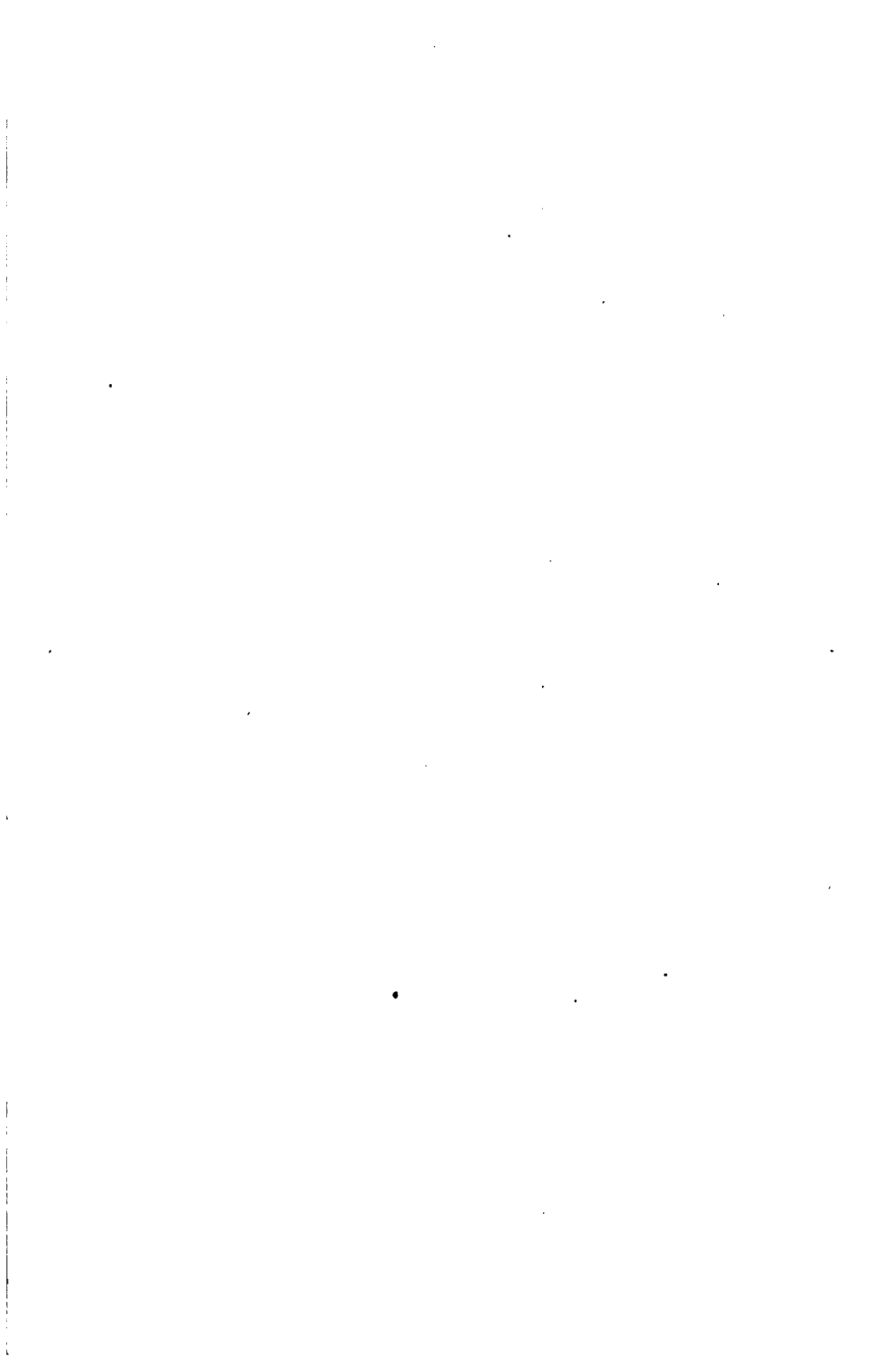
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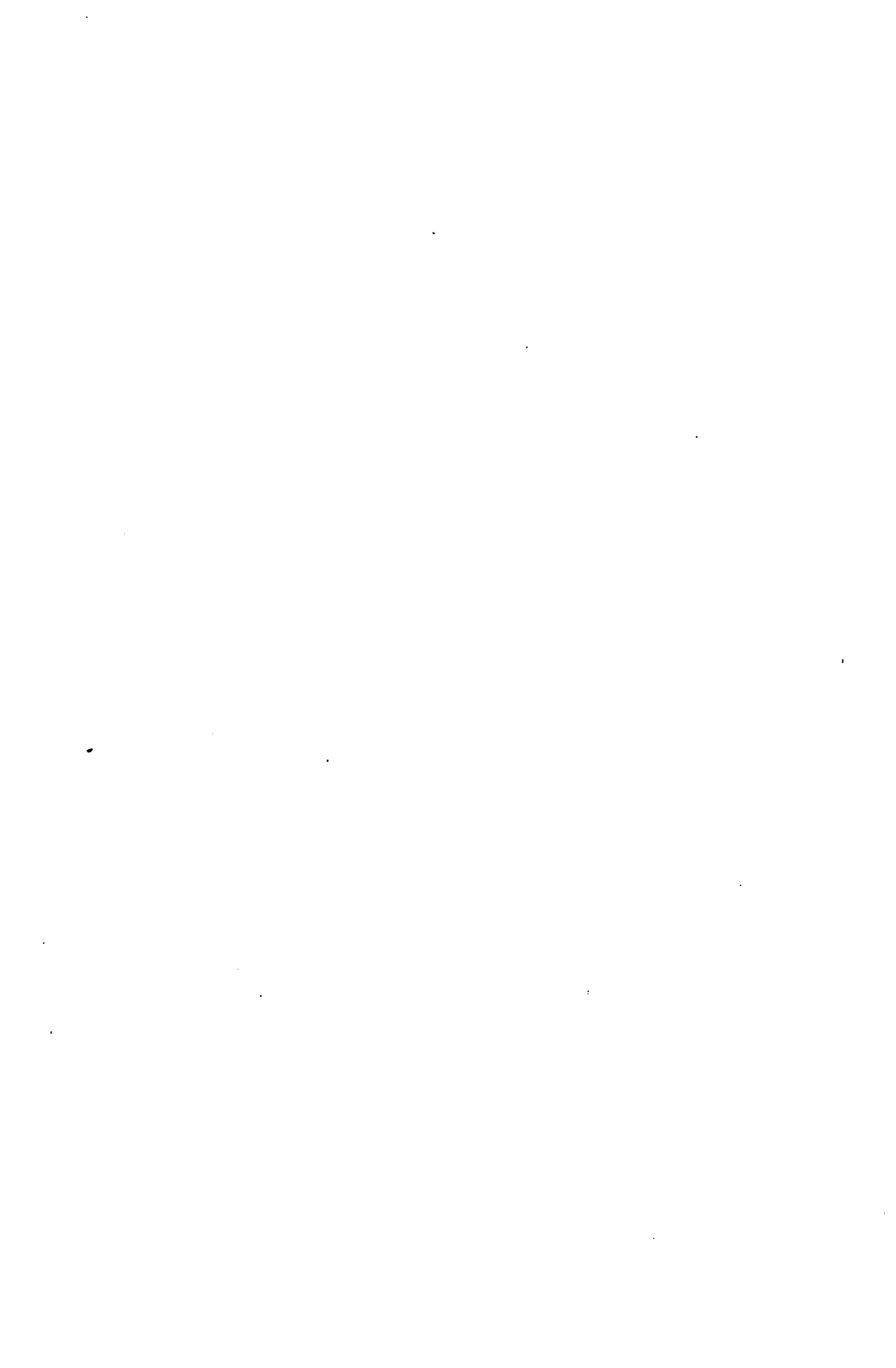
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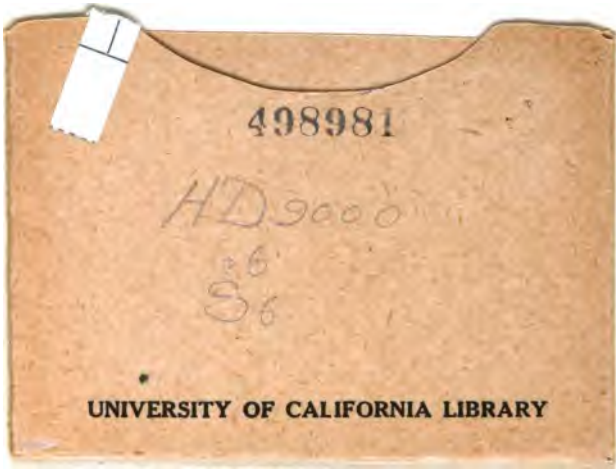




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